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HP Computer Museum
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For research and education purposes only.

Events

Mainframe Downsizing Seminar

Hewlett-Packard will be holding a Mainframe Downsizing Seminar on June 13 in Milwaukee, Wisconsin. Guest speakers will include John Logan from the Aberdeen Group.

For more information on the seminar or to register, call Marti Hegg at Hewlett-Packard, 708-505-8800, ext. 2704.

1991 MINNRUG Conference

The 1991 MINNRUG Conference is scheduled to be held July 10-11 at the Thunderbird Hotel in Bloomington, Minnesota. The theme for the HP 3000/9000 user's group event will be "Achieving Information Excellence."

For more information on the conference or to register, call Colleen Heutmaker at Hewlett-Packard, 612-644-1100, ext. 705.

HP News and Reviews

New 1991 value-added business (VAB) Premier Solution program

HP has selected more than 175 VABs closely aligned with HP's target markets for membership in the Premier Solution Provider (PSP) category of HP's 1991 VAB program. The PSP program is the highest of three categories. Others include listed and user-referenced solutions. This year's program focuses on targeted vertical markets with the addition of nine PSPs for manufacturing and five for health care. HP VABs market their software solutions on HP 3000 and 9000 systems and workstations.

HP wins $8 million workstation contract from GE Information Services

HP has been awarded an $8 million contract to supply GE Information Services with HP Apollo 9000 Series 400 workstations, servers, software development tools, software, and peripherals. GE Information Services will use the workstations and servers as part of a worldwide information services business that provides networking, electronic data interchange, business communications messaging, and custom application development. GE Information Services will use SoftBench, a software development environment, to create a new system using C and C++ languages.

TREND software available on HP 9000 Series 800 systems and servers

TREND advanced software solutions from R&D Systems in Colorado Springs, Colorado, is designed for wholesale distributors and will run on HP 9000 Series 800 business systems and servers. TREND helps control costs and improve productivity in inventory management and customer service. TREND features an integrated financial management distribution system, telemarketing, service billing, parcel management, office automation, and a fax interface.

Fuji Bank of Tokyo orders $7 million open information system

Fuji Bank Ltd., the third largest bank in the world, has chosen HP as the chief supplier and architect of an open systems-based computer network for use at Fuji headquarters in Tokyo, Japan. The system will include HP 9000 Series 800 computers, HP 700/X display stations or X terminals, HP OpenView systems, software, networking equipment, and services.

HP and Mitsubishi Electric announce PA-RISC purchase and licensing agreement

HP and Mitsubishi Electric Corporation (MELCO) announced a purchase and technology licensing agreement related to HP's standards-based Precision Architecture RISC (PA-RISC) products and technology. MELCO will purchase more than 10,000 HP-UX based workstations and servers. MELCO will use the computers as a component of custom-developed solutions to meet specific customer requirements.

The promotions listed in *HP Computer Update* contain brief information about HP promotions currently in effect — including new promotions, promotions with changes (underlined), and promotions that are ending.

For more details on any of the following promotions, contact your HP representative.

Special considerations may apply to some of these promotions and discount percentages can vary by country. Note: promotional programs listed with a "Worldwide" scope may not be available in all countries. Check with your HP representative for local availability.

Hewlett-Packard assumes no responsibility for any errors that might appear in these listings.

HP 3000 Systems

HP GlancePlus/V Introductory Pricing

HP GlancePlus/V (P/N 50733B) is now available at the HP Glance/V price for a limited time. HP GlancePlus/V is an enhancement to HP Glance/V.

- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** P/N 50733B
- **Start date:** April 1, 1991
- **End date:** October 31, 1991
- **Promotion number:** 2.524

OfficeShare Upgrade

If you have a current materials update support contract for HP Resource Sharing on MPE V or MPE XL, you can now purchase eligible upgrade products at a discount. This promotion may be combined with the "OfficeShare Upgrade to LAN Manager/XL" promotion (number 2.549).

- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** P/Ns D1810B, D1811B
- **Start date:** May 1, 1991
- **End date:** August 31, 1991
- **Promotion number:** 2.528

HP DeskManager Plus

If you purchase HP DeskManager Plus between May and October 1991, you will receive an approximate 12% discount.

- **Scope:** For U.S., U.K., France, Germany, Italy *(check with your HP representative for local availability)*
- **Eligible products:** P/Ns 36567A (English version), 36567AD (German version), 36567AF (French version), 36567AZ (Italian version)
- **Start date:** May 1, 1991
- **End date:** October 31, 1991
- **Promotion number:** 2.531

Series 900 Board Upgrade

If you purchase board upgrades to the HP 3000 Series 960, 980/100, and 980/200, you can receive a 10% discount on those upgrades and receive MPE V trade-in credits. If you purchase board upgrades to the Series 935, 949, 960, 980/100, and 980/200, you can receive a 15% discount toward the purchase of Mirrored Disk/XL (P/N 30349A), AutoRestart/XL (P/N 36375A), SPU Switchover/XL (P/N 36370A), and ALLBASE/Turbo Connect (P/N 36385A). If you purchase the Series 935, 949, 960, 980/100, and 980/200 board upgrades, you may also participate in a "Buy and Try" offer that lets you return your board upgrade within 60 days if performance expectations are not met. This promotion can be combined with "HP DeskManager Plus" promotion (number 2.531) and "$$$ Dollars for Dinosaurs $$$" promotion (number 2.533).

- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** P/Ns A1132A/33A/37A/38A, A1062A, A1601B
- **Start date:** June 1, 1991
- **End date:** October 31, 1991
- **Promotion number:** 2.545

OfficeShare Upgrade to LANManager/XL

If you have a current support contract for Resource Sharing MPE V or MPE XL, you can purchase eligible upgrade products at a discount. This promotion can be combined with the "OfficeShare Upgrade" promotion (number 2.528).

- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** P/N 32015A
- **Start date:** June 1, 1991
- **End date:** September 30, 1991
- **Promotion number:** 2.549

Workstations

S400 2-Step Upgrade Alternative

If you ordered the HP Apollo 9000 Series 400 33-MHz upgrade (P/Ns A2042A or A2043A) before February 1, 1991 (was previously listed as January 1, 1991), you are eligible for a two-step upgrade alternative. Step 1: purchase an upgrade to an HP Apollo 9000 Model 425s 25-MHz board (P/Ns A2044A or A2045A) and receive a 50% discount. Step 2: when the 33-MHz board becomes available, you can return the 25-MHz board and receive 100% credit for that board.

- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** P/Ns A2044A, A2045A
- **Start date:** February 1, 1991
- **End date:** July 31, 1991 (extended from May 31)
- **Promotion number:** 2.508

MDI Workstation

If you purchase MDI Company's mechanical analysis software, you may receive a 30% coupon on the purchase of an HP Apollo 9000 Model 425t PersonalVRX P2.

- **Scope:** For U.S. and Canada only
- **Eligible products:** P/Ns A1630A, A1098A
- **Start date:** February 15, 1991
- **End date:** August 30, 1991
- **Promotion number:** 2.515

HP 9000 Model 380 Upgrade

If you have an HP 9000 Model 330, 350, 360, or 370, you can return your old boards and purchase the new Model 380 CPU board upgrade, which includes 8 Mbytes ECC RAM, for a nondiscountable price of $4,000. This represents a 43-56% discount off the list price and includes the return credit for old CPU and system interface boards.

- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** P/N 98244D
- **Start date:** May 1, 1991
- **End date:** September 30, 1991
- **Promotion number:** 2.534

HP 9000 Series 300 Model 340 and 345 Add-On RAM

If you purchase HP 9000 Models 340 and 345 add-on RAM (P/Ns 98268A/29A/29S) within the promotional time period, you can receive discounts.

- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** P/Ns 98268A/29A/29S
- **Start date:** May 1, 1991
- **End date:** September 30, 1991
- **Promotion number:** 2.535

Domain Series 5500 Upgrade

If you have a current HP contract and have purchased an HP Apollo/Domain Series 3500, 3550, and 4500, you can upgrade to a Series 5500 board for the promotional price of $4,000 (approximately 55% off the list price). Old CPU boards must be returned within 60 days or you will be billed $1,000 per board.

- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** P/N A1631A
- **Start date:** May 1, 1991
- **End date:** September 30, 1991
- **Promotion number:** 2.536

Domain Series 35X0/4500 Add-On RAM

If you purchase Domain Series 35X0 and 4500 add-on RAM within the promotional time period, you can receive discounts on those products.

- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** P/Ns A-ADD-8MB-A/B, A-16MB-B, U458M16M-B
- **Start date:** May 1, 1991
- **End date:** September 30, 1991
- **Promotion number:** 2.537

HP 9000 Series 400 CRX Graphics Upgrade New

If you have an HP Apollo 9000 Series 400 VRX color, running with P/N 68040, you can return your old board and purchase the CRX upgrade (P/Ns A2079A or A2081A) at a promotional discount.

- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** P/Ns A2079A, A2081A
- **Start date:** June 1, 1991
- **End date:** July 31, 1991
- **Promotion number:** 2.543

DN10000 Upgrade Product Replacement Program New

If you have an Apollo DN10000, you can upgrade to an HP Apollo 9000 Model 750 workstation for an approximate 40% discount or purchase an additional DN10000 system for an approximate 40% discount. Specific CPUs and memory are available at promotional discounts.

- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** *Check with your HP representative.*
- **Start date:** June 1, 1991
- **End date:** November 30, 1991
- **Promotion number:** 2.546

Domain Series 3500, 4500, & 5500 DVS Graphics New

If you are a Domain/OS Series 3500, 3550, 4500, and 5500 user, you are eligible to purchase Desktop Visualization System (DVS) upgrades and bundle options at a 50% promotional discount.

- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** *Check with your HP representative.*
- **Start date:** June 1, 1991
- **End date:** January 31, 1992
- **Promotion number:** 2.547

Series 400 Desktop Publishing New

If you purchase four HP Apollo 9000 Model 425e color or monochrome workstations and licenses for one of the participating DTP software packages, you may receive an HP LaserJet III printer, PostScript cartridge, CD-ROM player, and a subscription to Software Store at no additional charge. Note: OEMs and resellers *are not* eligible for this promotion.

- **Scope:** For the U.S. and Canada only
- **Eligible products:** P/Ns A2131A/32A/40A/41A/46A/47A/56A
- **Start date:** June 1, 1991
- **End date:** October 31, 1991
- **Promotion number:** 2.548

HP 9000 Model 850S/855S Upgrade New

If you have an HP 9000 Model 850S/855S workstation, you can receive a discount on upgrades to the Model 865S and 870S/100 products. You must have had an HP 9000 Model 850S or Model 855S installed as of June 1, 1991, to qualify.

- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** P/Ns A1846A, A1141A
- **Start date:** June 1, 1991
- **End date:** October 31, 1991
- **Promotion number:** 2.550

HP OpenView Campus Management Station

New

If you purchase an HP Apollo 9000 Model 425e 2D color workstation and a copy of OpenView Network Node Manager 2.0, you will receive a coupon from HP that can be redeemed for the next-generation software when it becomes available, at no charge.

- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** P/Ns A2141A, B1009A
- **Start date:** June 1, 1991
- **End date:** November 30, 1991
- **Promotion number:** 2.551

Peripherals

"Fill It Up" Upgrade Kit

If you have an HP Series 6000 Model 330S/D (P/N C2212A/D) or Model 660S/D (P/N C2213A/D), you can purchase additional field upgrade kits and receive a promotional discount.

- **Scope:** For U.S., Canada, Latin America *(check with your HP representative for local availability)*
- **Eligible products:** P/Ns C2290A/D, C2291A/D, C2292A/94A, C2212A/D, C2213A/D
- **Start date:** May 1, 1991
- **End date:** August 31, 1991
- **Promotion number:** 2.532

Change

$$$ Dollars For Dinosaurs $$$

If you purchase an HP Series 6000 Model 335H (P/N C2201A), Model 670FL (P/N C2202A), Model 670H (P/N C2203A), or Model 1.34FL (P/N C2204A) disk drive, or the integration kit (P/N C2282A), you can trade in your HP 7933/35/36/37 and EMCC disks (>400 Mbytes/disk) per the eligible trade-in schedule and receive trade-in credits. Trade-in credit: $750/disk toward purchase of P/Ns C2201A/02A/03A/04A; $500/disk toward purchase of C2282A. Trade-in limits: For P/Ns C2201A/02A/03A/82A: trade in 1, buy 1, or trade in 5, buy 4; for P/N C2204A: trade in 2, buy 1, or trade in 5, buy 2.

- **Scope:** For U.S., Canada, Latin America *(check with your HP representative for local availability)*
- **Eligible products:** P/Ns C2201A/02A/03A/04A, C2282A
- **Start date:** May 1, 1991
- **End date:** October 31, 1991
- **Promotion number:** 2.533

Optical Solutions Buy and Try

If you purchase an HP Series 6300 Model 20GB/A deskside configuration (P/N C1700A), as well as one of the eligible software solutions (either third-party ISV or HP), you can receive a $3,000 promotional discount off the price of the C1700A product. You can use the product for up to 60 days, and if not completely satisfied, have the hardware and software deinstalled and returned to the seller and receive full credit.

- **Scope:** For U.S., Canada, Latin America *(check with your HP representative for local availability)*
- **Eligible products:** P/Ns C1700A, 36397A/98A, B1920A/21A, C2455A
- **Start date:** May 1, 1991
- **End date:** October 31, 1991
- **Promotion number:** 2.538

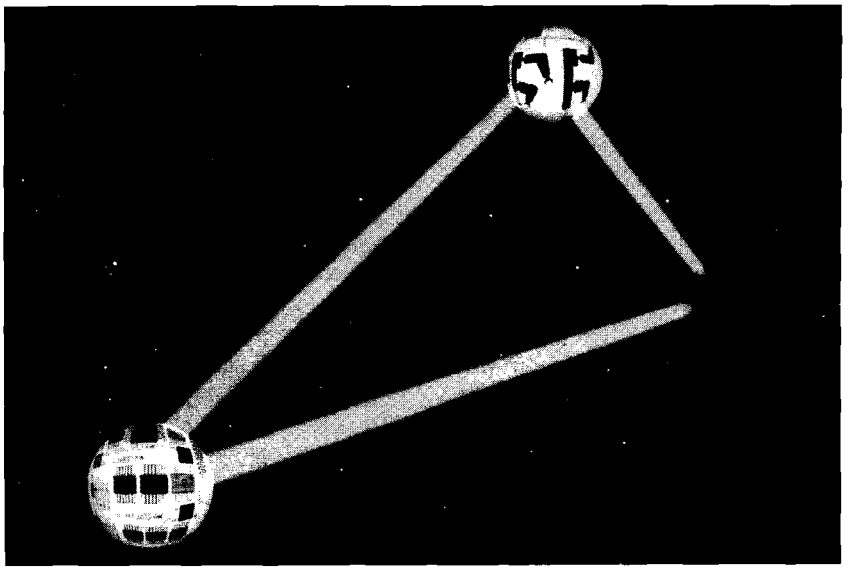
Support

HP Database Customer Education Discount

If you enroll two or more individuals in specified HP training courses on the same order, you can receive a $100 discount off the list price of the class. If you order an eligible on-site version, you can receive a $100 discount per student ($1,000 maximum).

- **Scope:** For U.S. only
- **Eligible products:** *Check with your HP representative.*
- **Start date:** May 1, 1991
- **End date:** June 30, 1991
- **Promotion number:** 2.529

Introducing HP Software Integration Sockets/XL for full integration



HP Software Integration Sockets/XL (P/N 92616A) is a high-level software tool set that enables full integration of existing or new applications with little or no modification to the application or its data structures. HP Software Integration Sockets/XL combines comprehensive application-to-application communications capabilities with data manipulation, software process control, and communication across a LAN. The product is supported on HP MPE XL platforms and can function with HP Sockets/UX (P/N 92568A).

Application communication and data translation features

- *Comprehensive, table-based (sources and destinations that are specified by identifiers rather than network addresses and can be changed without modifying source code) application-to-application communications* — provides file and message transfer, time-out handling, message spooling, random or sequential message access, guaranteed delivery, incoming message/file notification, synchronous/asynchronous messaging, and destructive/nondestructive message reads mailbox.
- *High-performance data translation, manipulation, record reformatting* — resolves data differences en route without change to the application; handles language-specific differences (C, FORTRAN, Pascal, COBOL), record restructuring, overflow/underflow handling, truncation and padding, data type conversion, alignment conversion, adding and deleting fields, initializing unused fields, assigning constraints to fields, configuration language that specifies record formats to the sender and receiver, and changes to one application process that only requires changes to HP Sockets data definition and manipulation tables.
- *Additional features* — local/remote program control; 12 data access routines to simplify building of application interfaces (adaptors); administration of the integrated environment; and development aids — simulation of interfaces, and data and error logging.

Substantial reduction of integration and maintenance effort

Once an interface has been specified, HP Sockets can save approximately 50% or more of interface coding and testing time. The number of lines of code for application interfaces can be reduced by between approximately 60 and 80%. Since HP Sockets interfaces do not cause rewrites to existing application code, projects can be implemented one step at a time, reducing the hurdle of initiating an integration project.

There is little to no impact on existing software applications. HP Sockets allows integration of applications without altering the internal data models, thereby protecting investments in existing applications.

Unparalleled flexibility in software configurations

Interface programs can be constructed that do not need source code changes when the following interface characteristics are changed: network address of sending or receiving application, type of CPU on which the other application resides, invocation and execution parameters for process control, communication buffer sizes (impacting performance), and record formats at sending or receiving end.

Additional benefits include the development of sophisticated interfaces with minimal programming, faster delivery of integration, elimination of the network interface from integration routines, reduction in the learning curve to write interfaces, no hardware requirements or expense, and reduced support burden of application interfaces.

HP Sockets complements remote procedure call products such as NCS that are used in the development of new applications. HP Sockets can be used as a bridge between existing applications and applications using other HP NewWave Computing technologies such as HP NewWave Office.

Technical specifications/ configuration information

HP Sockets/XL runs on 900 Series HP 3000 and requires HP MPE XL 2.2 or later, HP's Network Services software, one C compiler to serve all HP 3000 systems on the LAN, and 24 Mbytes of main memory. For the first release, an HP 9000 running HP-UX Version 7.0 must be on the LAN for system administration purposes only. HP 3000-only system administration will be available in late 1991. HP Software Integration Sockets now supports NLS-16 data integrity.

For more information, contact your HP representative.

HP OpenView System Manager manages HP 3000s over any NS network

With the second release of HP OpenView System Manager (P/Ns 36936A, 36937A, 36938A), operators can now consolidate operations of their networked HP 3000s over NS LAN, NS Point-to-Point, or NS X.25 networks. HP OpenView System Manager allows operators to monitor and control their systems and applications from a central console.

Features and benefits

- *Management by exception* — frees operators from monitoring every system console message. Operators monitor systems at a glance via the HP OpenView Windows graphical network map. Systems on the map change color to reflect their current status. Operations departments define which problems to track, eliminating unwanted notification.
- *Event message review* — provides operators with a summary of outstanding events and associated event messages.
- *Console control* — provides operators with full console access to all of their networked HP 3000s, as though they were sitting at the local consoles. Operators can control system shutdown (Control-A), system restart (Control-B), HP MPE command execution (restarting the network), and applications.
- *Trouble tracking* — allows operators to add notes to event messages describing additional information about those messages. Notes can include information such as actions the operator took in response to the event messages and actions that still need to be taken. This feature is particularly useful for multishift operations where it is often difficult to track problems during shift changes.
- *Long-term trend analysis* — provides trouble tracking over time with customized reports on all events along with their annotations. Events and their annotations are logged in a database from which reports are generated.

Contact your HP representative for more information.

HP FTAM 3000/XL and HP OTS 3000/XL provide multivendor communications capabilities

HP FTAM 3000/XL is an OSI file transfer service that provides multivendor file system interoperability for the 900 Series HP 3000. This permits transfer or management of virtually any defined data type between 900 Series HP 3000 systems and multivendor OSI networked systems, regardless of the hardware platform or operating system. Multivendor communication capabilities allow you to leverage your investments by increasing the ease of sharing information among different systems.

HP FTAM 3000/XL operates over HP OTS 3000/XL on top of either a local (802.3) or wide (X.25) area network link. HP FTAM 3000/XL includes the following features:

- text and binary file transfer
- file management — create/delete files, read file attributes, and rename file

With HP FTAM 3000/XL and HP OTS 3000/XL, the HP 3000 now complies with the Government OSI Profile (GOSIP) Version 1.0. In addition, both products are fully compliant with the European (CEN/CENELEC) and Pacific regional (INTAP, POSI) OSI profile requirements.

Standards compliance reduces costs

Assurance of multivendor interoperability between HP FTAM 3000/XL and standards conforming products is provided through factory testing. Interoperability testing has been completed with HP FTAM/9000 and DEC VAX VMS and will be tested with IBM toward the end of the year. Standards compliance improves information sharing and reduces your costs by eliminating network gateways and file conversion software usually required to interconnect nonstandard file systems.

Your network and software investments are protected

NS/ARPA/OSI coexistence and transition protects your network and software investments. You can add initial OSI products to existing networks and evolve to full OSI. The interactive user interface modeled after ARPA File Transfer Protocol (FTP) interface reduces learning time. If you have FTP in production networks but are planning to migrate to OSI, HP FTAM 3000/XL is designed to coexist on networks with TCP/IP and ARPA.

You must order HP FTAM 3000/XL (P/N 36972A) and HP OTS 3000/XL (P/N 36971A) for OSI file transfer services to be functional. In addition, HP's ThinLAN/XL Link (P/N 36923A) or DTC X.25 XL Network Link is required for network operation.

ARPA Telnet services now on 900 Series HP 3000

Telnet/XL products facilitate logging on remotely between the HP 3000 and other HP and non-HP systems via the industry-standard ARPA protocol. The 900 Series HP 3000 gains new connectivity capabilities through the multivendor DTC. (See the DTC enhancement articles in the Networks section of this issue.) The multivendor capabilities of the DTC make Telnet/XL possible.

Easy access to applications across the network

Telnet makes the 900 Series HP 3000 more open by allowing application access to users on other HP and non-HP systems. DTC-connected users have access to applications on a Telnet host. Telnet has been implemented in the DTC to offload the system CPU of intensive Telnet protocol processing. Your investment in OLTP performance is protected, and system CPU is left available for other mission-critical uses.

Multiple 900 Series HP 3000 systems share one DTC-based solution

You can save by purchasing Telnet based on the number of sessions needed as opposed to purchasing a solution for each 900 Series HP 3000 system. And, because Telnet is based on industry-standard ARPA protocols, there is increased multivendor connectivity resulting from the large number of vendors who implement ARPA.

Product requirements

The DTC provides the ability to access applications on a Telnet host by a DTC-connected user via the Telnet protocol. The only requirement for this access is PC-based HP OpenView DTC Manager Release 10.5 or later. Older HP DTC48s with a date code less than 3110 also require a memory upgrade. Access to 900 Series HP 3000 applications from a Telnet host-user requires HP OpenView DTC Manager Release 10.5 or later, as well as additional hardware. Two new hardware products facilitate this access:

- HP Telnet Access card (P/N 2347A), which is installed in an empty slot of a DTC48, provides up to a maximum of 40 concurrent Telnet sessions logged on to the 900 Series HP 3000. Of these sessions, up to 40 can be active if VPLUS block-mode applications are being accessed, and up to 9 if character-mode applications are being accessed.
- HP Telnet Express (P/N 2344A), which connects directly to a LAN, is dedicated to Telnet, and provides up to a maximum of 80 concurrent Telnet sessions of which 60 can be active if accessing VPLUS block-mode applications, and 12 if accessing character-mode applications. You can choose one or any combination of these products to obtain the number of HP 3000 Telnet access sessions needed.

Product No.	Description
2344A	HP ARPA Telnet Express
2347A	HP ARPA Telnet Access
36955A	HP ARPA/40 Services/XL, includes Telnet Access card and FTP for the specified system
36956A	HP ARPA/80 Services/XL, includes Telnet Express and FTP for the specified system

HP GlancePlus/V — on-line monitoring for HP 3000 MPE V systems

HP GlancePlus/V (P/N 50733B) is an on-line monitoring and diagnostic tool for examining HP MPE V system activity. HP GlancePlus/V provides ready access to current system performance information. System managers or operators can now more easily and effectively manage their systems for sustained peak performance.

System performance information and diagnostic capabilities include:

- The display of summarized overviews of important performance information so you can quickly examine how your systems are operating. The software also provides detailed information necessary for isolating and resolving performance problems when they occur.

■ ■ ■ ■

- User-definable filters and update intervals allow you to customize data as needed to determine what information is important and relevant to display. On-line help, general data interpretation guidelines, graphical displays of data, and function keys make HP GlancePlus/V easy to learn and use.

HP GlancePlus/V replaces HP Glance/V (P/N 50733A). HP Glance/V users with software support for HP Glance/V will receive an upgrade to HP GlancePlus/V at no additional cost.

There is a current promotion for HP GlancePlus/V (promotion number 2.524). See the Promotions section in this issue of *HP Computer Update.*

NetWare/XL availability brings PC NOS to HP 3000 systems

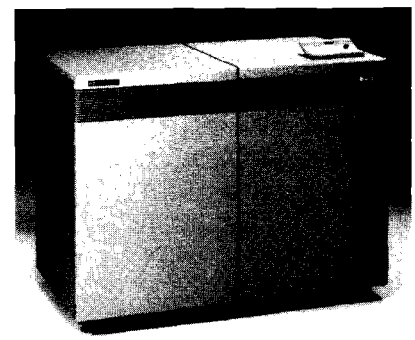
NetWare/XL for the HP 3000 brings the most commonly installed PC Network Operating System (NOS) to the 900 Series HP 3000. HP 3000 with NetWare services will connect to existing Novell networks or can be used to build new NetWare networks and provide the same services as NetWare PC-based servers.

Features include:

- *Client/server development environment application programming interface (API)* — Support for interprocess communication (IPC) capability that NetWare provides is important to developers and end users.
- *File and print sharing* — File sharing with familiar NetWare file access, file allocation, and administration features; NetWare features such as resource accounting, password protection, and file backup are included. Access to MS-DOS, OS/2, or Apple Macintosh files from HP MPE applications is provided by a set of function calls when the server is in operation. Printer sharing and print queue management is provided through familiar NetWare commands. Virtually any supported HP 3000 spooled printer can be used to print from a NetWare server print queue.
- *Apple Macintosh connectivity* — With the use of an HP Vectra PC acting as a protocol converter, NetWare for the HP 3000 looks like an Apple file server.
- *HP Network Services 2.1 connectivity* — Access to existing HP 3000 applications from a NetWare client is important. HP NS2.1/MS-DOS for NetWare provides this capability, and is ordered separately (P/N D1819A). HP Network Services 2.1/MS-DOS provides NetWare client-PCs running MS-DOS with Virtual Terminal access, Network File Transfer, and Network Interprocess Communication connectivity to hosts with the complementary NS services.

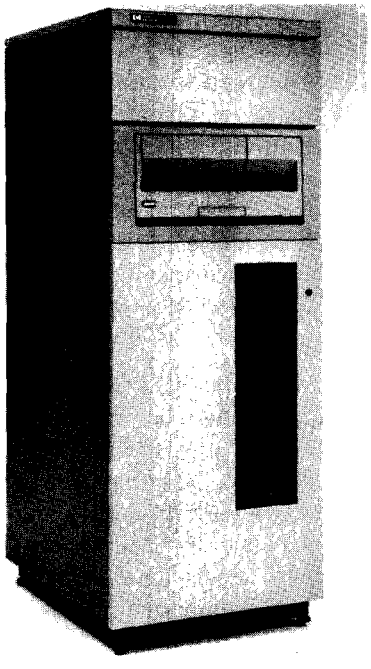
MS-DOS is a U.S. registered trademark of Microsoft Corporation.

HP 3000 Series 980/200 delivers impressive performance



With two-way symmetric multiprocessing, the HP 3000 Series 980/200 is the first HP system that provides the power of two processors in a single system. The HP 3000 Series 980/200 delivers excellent performance scalability with the addition of the second processor. In benchmarks of a major turbo-based HP 3000 manufacturing application, the performance of the Series 980/200 has been greater than 1.5 times that of the uniprocessor Series 980/100. Multibatch benchmarks (multibatch processing is typical in overnight batch processing) showed even greater performance scaling, with the Series 980/200 delivering more than 1.7 times better performance than the Series 980/100. These benchmark results indicate that the Series 980/200 delivers interactive performance that is greater than 2.5 times the performance of a Series 960, and batch performance that is 3.4 times greater.

HP 3000 Series 925, 935, 949 board upgrade enhancements



The board upgrade to the HP 3000 Series 949 has been restructured to a 100-user system, with an option available for an unlimited user license. This allows HP 3000 Series 925 and 935 environments with a smaller number of users to obtain the performance of the Series 949 at a savings. This product (P/N A1601B) replaces the original HP 3000 Series 949 board upgrade product (P/N A1601A), which will continue to be supported. The price of the board upgrade has been reduced by up to approximately 41% to provide enhanced investment protection for HP 3000 Series 925 and 935 users. Board upgrade option memory pricing has been reduced by approximately 60%.

HP MPE XL to be certified at C2 level of trust

Hewlett-Packard is pursuing an evaluation of HP MPE XL by the National Computer Security Center (NCSC). We have a project team with an objective to work with the NCSC to certify HP MPE XL at the C2 level of trust and include it on the National Security Agency's Evaluated Product List by late 1992. As part of the evaluation effort, we will port Security Monitor/V to HP MPE XL. Key software elements include Security Monitor/XL and the security enhancements to the HP MPE XL Fundamental Operating Software (FOS) included with Release 3.0.

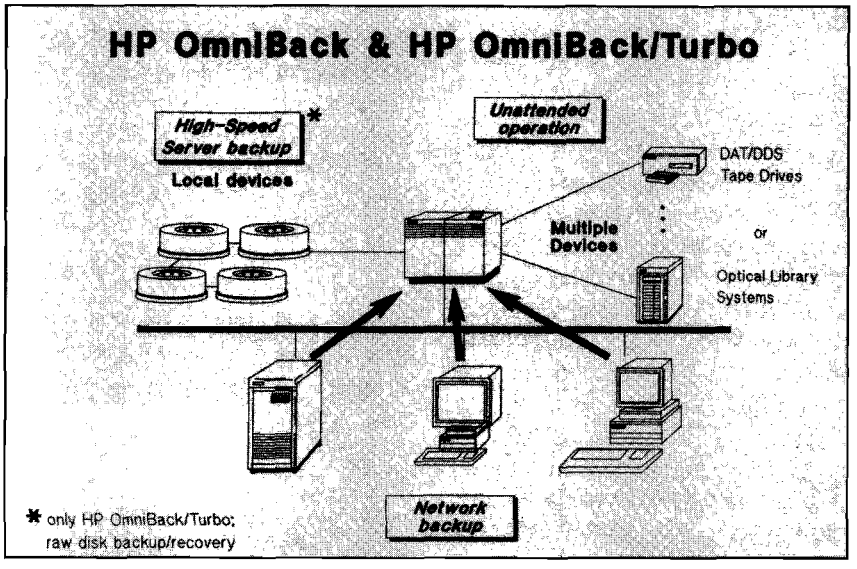
HP 3000 Series 950 discontinuance

Effective September 1, 1991, the HP 3000 Series 950 (P/Ns 32490B and 32490BH) will be discontinued. Support life for the HP 3000 Series 950 is guaranteed through 1996 and may be extended at a later date.

Also In This Issue

HP Software Integration Sockets now supports NLS-16 data integrity 17

HP OmniBack and HP OmniBack/Turbo manage network backup



HP OmniBack (P/N B1920A) and HP OmniBack/Turbo (P/N B1921A) are new backup management solutions for HP-UX and Domain/OS systems. HP OmniBack and HP OmniBack/Turbo provide enhanced backup functionality for networked and mainframe class systems. They provide central backup for networked environments, unattended operation, and high-speed backup of locally attached devices.

Central, unattended, high-speed backups improve operating efficiency

- *Central backup* — HP Omniback and HP OmniBack/Turbo's network component provide central backup and recovery of networked systems. From any machine on the network, the system operator can backup and restore files from any disk on the network, using storage devices located anywhere on the network. Central backup management leads to substantial improvements in operating efficiency and aids in achieving networkwide data integrity and security. In addition, sharing backup devices across the network helps you reduce costs. Central operating is becoming more important due to the increasing number of distributed, networked computing environments.
- *Unattended backup* — HP OmniBack and HP OmniBack/Turbo support multiple DAT/DDS devices and HP's Rewritable Optical Disk Library system. With four DAT/DDS units, it is possible to perform unattended backup of 5.2 Gbytes of data. With two Library systems, it is possible to perform unattended backup of up to 40 Gbytes. Unattended backup allows backing up overnight or over the weekend without operator intervention, leading to significant operating cost reductions.
- *High-speed backup and recovery* — HP OmniBack/Turbo's high-speed component provides high-speed backup to locally attached devices of up to 5 Gbytes per hour. This is up to 15 times the performance of standard UNIX system commands such as TAR, CPIO, or DD. HP OmniBack/Turbo achieves outstanding performance by providing two features: raw disk backup and simultaneous backup using as many as four parallel output devices. High-speed backup provides a tremendous increase in system availability. HP OmniBack and HP OmniBack/Turbo's network component achieves up to 0.72 Gbyte per hour over network environments.

Note: HP OmniBack/Turbo consists of the network component which is HP OmniBack and the local high-speed component. Data backed up with the high-speed component (raw disk backup) needs to be recovered with the high-speed component (raw disk recovery). Data backed up with the network component (file backup) needs to be recovered with the network component (file recovery).

- *Heterogeneous environments* — HP OmniBack and HP OmniBack/Turbo provide complete network backup management of mixed HP-UX and Domain/OS environments. Support of heterogeneous environments protects your investment and lowers software maintenance costs.
- *Based on industry standards* — HP OmniBack and HP Omniback/Turbo's network component is based on HP's Network Computing System (NCS). NCS is a de facto industry standard that has been accepted by the Open Software Foundation (OSF) as part of the Distributed Computing Environment (DCE). It lets you tie together machines in heterogeneous

networks to create a single pool of computing resources. NCS has been implemented on all leading computing platforms and has been adopted by OSF. With NCS as a foundation, HP OmniBack and HP OmniBack/Turbo inherit the ability to operate in a heterogeneous computing environment.

- *Full range of backup, restore, journaling, and scheduling functionality* — HP Omniback and HP OmniBack/Turbo provide a powerful backup scheduling facility that automates the process of scheduling and performs backups for an entire network. The scheduling system allows the administrator to quickly develop the specialized worklist that defines the network backup agenda. Operators can initiate a backup session without training on backup schedules and procedures.

HP OmniBack and HP OmniBack/Turbo automatically relieves the operator of the time-consuming tasks of tracking, logging, and rescheduling network and system backups. The operator need only reference the journals when investigating problems and locating backup media for file restore.

HP Omniback and HP OmniBack/Turbo dramatically reduce the time and effort required to backup and restore data.

Product description	System environment
HP OmniBack/Turbo	HP 9000 Series 800/600 business servers
HP OmniBack	HP 9000 Series 800/600 business servers
HP OmniBack	HP 9000 Series 300/400/800 workstations
HP OmniBack	HP Apollo 9000 Series 700 workstations
HP OmniBack	HP/Domain/OS

HP OmniBack and HP OmniBack/Turbo on HP 9000 Series 800/600 business servers

Product No.	Description
B1920A	HP OmniBack
B1921A	HP OmniBack/Turbo
The following options are for both products listed above	
Opt. AH0	For HP 9000 Model 808S
Opt. AEL	For HP 9000 Models 815S, 822S
Opt. AE5	For HP 9000 Models 825S, 832S, 635SV
Opt. AE6	For HP 9000 Models 835S, 842S, 645SV
Opt. AEN	For HP 9000 Models 840S, 845S, 852S
Opt. AEP	For HP 9000 Models 850S, 855S, 860S, 865S
Opt. AH1	For HP 9000 Model 870S/100

Note: P/Ns B1920A, B1921A are for HP-UX 7.X and 8.0.

HP OmniBack on HP-UX and Domain/OS workstations

	Product numbers			
Number of systems	Series 300/400 wkstations	Domain/OS wkstations	Series 700 wkstations	Series 800 wkstations
One workstation per site	B2146A/B	LA430	B2152A	B2147A/B
Additional workstations				
2-24	B2148A/B	LB43AB00	B2153A	B2149A/B
25-99	B2148A/B	LB43AB00	B2153A	B2149A/B
100+	B2148A/B	LB43AB00	B2153A	B2149A/B

Note: P/Ns B2146A/B2148A and B2147A/B2149A are for HP-UX 7.X; P/Ns B2146B/B2148B, B2147B/B2149B, and B2152A/B2153A are for HP-UX 8.0.

HP Software Integration Sockets now supports NLS-16 data integrity

HP Software Integration Sockets now supports NLS-16 data integrity. Data Integrity was certified on HP 9000 Series 300 and 800, and 900 Series HP 3000 systems running C, FORTRAN, Pascal, and COBOL languages currently supported by HP Sockets. Cross-language combinations were also tested and verified to work properly. Test files included corner cases and represented sufficient breadth and depth of Japanese, Chinese, and Korean character sets.

Introducing HP Software Integration Sockets/XL for full integration 10

New HP Apollo 9000 Model 425e low-cost workstation

The HP Apollo 9000 Model 425e is a low-cost UNIX-system based workstation with a 25-MHz MC68040 processor. Well suited for software engineering (CASE), architectural engineering (AEC), desktop publishing (DTP), and low-end 2D CAD work environments, this new price/performance leader is currently the lowest cost HP-UX or Domain/OS color workstation in the HP family. It is also well suited for UNIX system client nodes in applications such as financial trading, customer service, and information access.

The HP Apollo 9000 Model 425e uses a new desktop package design that measures only 3 x 16½ x 14 inches. The 25-MHz MC68040 processor provides performance of 22.1 MIPS and 11 SPECmarks. Memory is configurable from 8 to 48 Mbytes, using ECC SIMM modules.

The graphics system gives outstanding X Window performance

Three different graphics systems are available. Each of them has been tuned to give X Window performance. The grayscale graphics provide multiple shades of gray with a 19-inch high-resolution (1,280 x 1,024) monitor. Color comes in either medium resolution (1,024 x 768) and a 16-inch monitor, or high resolution with a 19-inch monitor standard. All graphics are 8 planes, so 256 shades or colors may be displayed from a palette of 16.7 million.

A wide choice of internal peripherals is available. The HP Apollo 9000 Model 425e includes two internal mass storage bays, one for half-height 5¼-inch peripherals, and the other for 3½-inch sizes. Systems may be purchased diskless, or with either a 210- or 420-Mbyte internal disk. Options on the single-disked configurations allow the addition of either a 3½-inch floppy disk drive or a CD-ROM drive. Any of these internal peripherals may also be added through user-installable upgrade kits to build a system with two internal disk drives, or to later add a peripheral to a diskless system.

A full complement of backplane I/O ports

The HP Apollo 9000 Model 425e includes a full complement of backplane I/O ports. It has three 9-pin RS-232-C serial ports, SCSI, parallel (Centronics compatible), and Ethernet (ThinLAN BNC connector or AUI). The system does not include an EISA slot or HP-IB. The Model 425e represents another step in the evolution toward SCSI as HP's standard mass storage interface, and toward Ethernet as our standard networking interface. Use of another HP Apollo 9000 Series 400 product, such as the Model 425t, is recommended as a gateway between Apollo Token Ring and Ethernet networks. Another new feature is the availability of a PC style (PC-101) keyboard. HP-UX 8.0 supports the PC keyboard, which includes a converter of the keyboard connector to convert to HP-HIL. The PC-101 keyboard is available with an additional localization kit (P/N A2205A).

Either HP-UX 8.0 or Domain/OS SR10.3 with PSKQ3_91 are required to support the HP Apollo 9000 Model 425e. Current applications are object-code compatible with the Model 425e.

Trade-up program offers investment protection

The Model 425e is part of the recently announced trade-up program, allowing you to easily trade to another Series 400 or 700 product when needed. With the Flex 400 program, you can get Series 400 workstations now and move to the Series 700 later.

The HP Apollo 9000 Model 425e is available with standard system configurations. Several options are available for each configuration, and additional flexibility is possible through user-installable upgrade products. Only the standard configurations are listed here.

Product No.	Description
Domain/OS standard configurations	
A2145A	Grayscale diskless, 8 Mbytes RAM
A2146A	Grayscale with 200-Mbyte disk, 8 Mbytes RAM
A2147A	Grayscale with 400-Mbyte disk, 16 Mbytes RAM
A2149A	Medium resolution color diskless, 8 Mbytes RAM
A2150A	Medium resolution color with 200-Mbyte disk, 8 Mbytes RAM
A2151A	Medium resolution color with 400-Mbyte disk, 16 Mbytes RAM
A2154A	High resolution color diskless, 8 Mbytes RAM
A2155A	High resolution color with 200-Mbyte disk, 16 Mbytes RAM
A2156A	High resolution color with 400-Mbyte disk, 16 Mbytes RAM

Product No.	Description
HP-UX standard configurations	
A2130A	Grayscale diskless, 8 Mbytes RAM
A2131A	Grayscale with 200-Mbyte disk, 8 Mbytes RAM
A2132A	Grayscale with 400-Mbyte disk, 16 Mbytes RAM
A2134A	Medium resolution color diskless, 8 Mbytes RAM
A2135A	Medium resolution color with 200-Mbyte disk, 8 Mbytes RAM
A2136A	Medium resolution color with 400-Mbyte disk, 16 Mbytes RAM
A2139A	High resolution color diskless, 8 Mbytes RAM
A2140A	High resolution color with 200-Mbyte disk, 16 Mbytes RAM
A2141A	High resolution color with 400-Mbyte disk, 16 Mbytes RAM

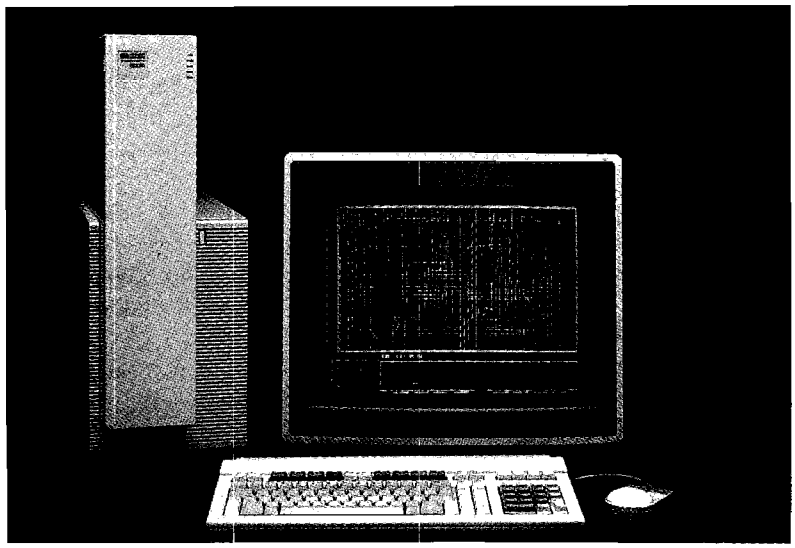
For more information, contact your HP representative.

UNIX is a registered trademark of AT&T in the USA and in other countries.

X Window System is a trademark of the Massachusetts Institute of Technology.

New HP Apollo 9000 Models 425t and 425s graphics — increased speed and performance

HP announced two new, high-performance 2D graphics systems available on the HP Apollo 9000 Models 425t and 425s workstations. In the past, graphics included intelligence on the graphics board for higher performance. The HP Apollo 9000 Series 700 changed this model by relying on the CPU for performance boost. Now with the 68040 in the HP Apollo 9000 Series 400, the same graphics technology provides increased graphics speed with no increase in price.



Two new, high-performance 2D graphics systems available on the HP Apollo 9000 Models 425t and 425s workstations.

Up to three times previous graphics performance

GRX graphics are 8-plane grayscale, which allows display of up to 256 shades of gray at one time. The degree of detail is useful as a low-cost alternative to color. A 19-inch, high-resolution 72-Hz monitor is standard on GRX graphics systems. The GRX graphics also have improved scrolling speed. A 500-line file, which takes 17 seconds to scroll in a typical X window (such as 80 by 24), takes 4 seconds on the GRX.

CRX are color graphics, with 8 planes, 256 displayable colors, and an available palette of 16.7 million colors. The performance, as measured in X11 vectors/second, is nearly three times that of the color VRX. For HP-UX Starbase users, the 2D vectors-per-second speed increases. The monitor for the CRX graphics is high resolution, 19 inches, and operates at 72 Hz. This not only gives you a crisp display, but it also resolves flickering problems.

The GRX and CRX graphics are supported by either Domain/OS SR10.3 with PSKQ3_91, or HP-UX 8.0. In general, applications should work without effort, and only need to be tested to verify. HP-UX applications that use previous generation overlay planes may require some recoding.

Upgrades for existing HP Apollo 9000 Models 400t/425t and 400s/425s VRX systems to CRX are available. A short-term promotional program planned to reduce the price of the upgrade by approximately 50% will begin June 1 to run through July 31, 1991. See the Promotions section in this issue of *HP Computer Update* for more information.

Ordering information

The GRX and CRX graphics are available at the same prices as the monochrome and color VRX graphics. New standard configurations of the HP Apollo 9000 Models 425t and 425s offer GRX/CRX in systems. Contact your HP representative for more detailed information regarding these new configurations.

New high-performance, high-capacity mass storage for HP Apollo 9000 Series 400

New disk drives for HP Apollo 9000 Series 400 systems — 1.3-Gbyte SCSI disk for HP Apollo 9000 Model 425s and 210- and 420-Mbyte SCSI disks for HP Apollo 9000 Model 425e/425t — along with enhancements to HP-UX 8.0 and Domain/OS SR 10.3 PSK3Q_91, provide significant improvements in capacity and I/O performance.

The 420-Mbyte 3½ SCSI disk available on the HP Apollo 9000 Models 425e and 425t offers double the capacity at approximately 12.5% lower price-per-megabyte cost than the 210-Mbyte SCSI disk.

A higher performance 210-Mbyte, 3½-inch SCSI disk drive is also available on all HP Apollo 9000 Model 425e systems and on newly announced GRX and CRX models of the Model 425t.

Improvements in sequential and random performance

Both 210- and 420-Mbyte drives offer substantial improvements in performance. The 210-Mbyte drive offers both improved sequential (approximately 25-300%) and random performance (approximately 17%) over HP's previous generation 200-Mbyte 3½-inch SCSI disk. The 420-Mbyte drive offers the highest 3½-inch SCSI performance (approximately 30% faster sequential performance than the new 210-Mbyte disk).

The new 1.3-Gbyte 5¼-inch SCSI disk drive, available internally in the HP Apollo 9000 Model 425s, offers a reduction in price per megabyte of approximatley 19% compared to the 660-Mbyte 5¼-inch disk. It offers the best disk capacity value available from HP, and is currently the highest capacity 5¼-inch SCSI disk drive available. There is a significant improvement in sequential performance (between approximately 30 and 65%) compared with HP's previous 5¼-inch SCSI disks.

Enhancements to HP-UX 8.0 include extending the file system size to 2.0 Gbytes, eliminating the seven-device SCSI limit, and offering tools to tune the file system at install time. The enhancements allow a maximum disk capacity on an HP Apollo 9000 Model 425s of 27.3 Gbytes (almost a six-fold increase in supported maximum capacity).

Installation and support

The new internal disks are available as both factory-ordered options and user-installable field upgrades. HP-UX 8.0 or Domain/OS 10.3 PSK3Q_91 is required for support.

HP SharedX for real-time communications in distributed computing environments

HP SharedX for HP 9000 Series 300 and HP Apollo 9000 Series 400 with HP-UX 7.X (P/N B2305L/A) is an extension to the X Window System that allows the sharing of applications. Members of geographically dispersed groups can now simultaneously view and modify information within a window.

HP SharedX is the first product to allow two or more users in distributed computing environments to communicate with each other in real time. Combined with a telephone, HP SharedX provides a level of computer-aided collaboration previously unavailable:

- Sharing is quick and easy. Pick a destination, push a button, and pick a window to share.
- On-demand sharing is possible. Sharing can occur whenever it is needed.
- Almost any existing X protocol-based application that runs in the X Window System today can be shared, without modification.
- Multiple windows can be shared among several machines at the same time. Teams all have the same view of and can input to the same application. The sender controls who may input to the shared application. Pointing devices, called telepointers, can be placed in any shared window to focus participants' attention on a certain part of the window.
- Only the sender's display needs to have the Shared X extension. Any display running standard X can receive shared windows without any modification. HP officially supports only HP-to-HP sharing.
- HP SharedX does not change standard X security. No permanent access is required to share a window with another machine. The receiving display grants permission to the sender to send the window by performing the xhost command.

Upcoming seminars for HP VABs

Sales training for VABs

The S.A.L.E.S.™ Course is coming to Hewlett-Packard sales offices in the Northeast this spring and summer. This two-day course, taught by Richard Chambers of America's Return Inc., presents the fundamentals of solution selling: Managing the Meeting, Managing the Account, and Managing Yourself. Through role-playing scenarios, salespeople practice proactive consultative selling skills. Students learn to ask more of the right questions, to look strategically beyond the current order, and to spend their time more effectively.

The course is designed for intermediate-level sales representatives, though beginning can reps benefit from the overview, and advanced reps may increase their efficiency.

To enroll, or to find out more about the course, contact Richard Chambers at America's Return, 800-472-5373 (toll-free in the U.S.), 415-525-2504 (worldwide). Registration and payment arrangements can be made by phone.

Date	HP office location	Fee*
June 25-26	Falls Church, Virginia	$495
July 9-10	Burlington, Massachusetts	495
July 11-12	Rochester, New York	495
July 23-24	Glastonbury, Connecticut	495
July 25-26	Valley Forge, Pennsylvania	495

** Price for three or more attendees is $395 per person.*

The Executive Training Series

These seminars are one day in length and provide critical insights and successful strategies for improving your competitive advantage. Taught by experienced independent consultants, all seminars are priced well below industry averages.

To register for any Executive Training Series course, or to get more detailed course descriptions on each class, call 800-472-5277, ext. 62 (in the U.S.) or 415-960-3773, ext. 62 (worldwide). The following are brief descriptions of each course:

- *Launching New Products* ***(new)*** — In today's competitive marketplace, a well-managed, properly executed product launch is vital to success. In this seminar, learn a strategic, repeatable process to manage product launches. Learn how to reduce the time required to launch a new product, improve control and minimize surprises, and translate creative marketing concepts into plans that can be both implemented and measured.
- *Value Pricing for Profit* ***(new)*** — The true meaning of marketing is knowing what is of value to the customer. Then it is up to the marketeer to create, convey, and communicate value to the customer. This seminar provides an analytical framework for approaching pricing problems, from pricing new products to obtaining premium pricing.

Course	Title	Fee*
HP50794A + 001	Strategic Business Planning	$295#
September 17 — Paramus, New Jersey		
HP50794A + 002	Efficient Advertising Techniques	295#
September 18 — Paramus, New Jersey		
HP50794A + 003	Marketing Communications Strategy	195 +
September 10 — Naperville, Illinois		
HP50794A + 004	Marketing Communications Tactics	195 +
September 11 — Naperville, Illinois		
HP50794A + 005	Effective Sales Literature	195
June 26 — Andover, Massachusetts		
HP50794A + 006	Productive Teleprospecting	295
August 14 — Andover, Massachusetts		
New courses		
HP50794A + 009	Launching New Products	295
July 16 — Mountain View, California		
HP50794A + 010	Value Pricing for Profit	295
July 23 — Naperville, Illinois		
HP50794A + 011	Mining your Installed Base	295
August 20 — Fullerton, California		

** U.S. list prices*

 # There is a discounted fee of $495 for attending both Strategic Business Marketing and Efficient Advertising Techniques on consecutive days (course number HP50794A + 007).

+ There is a discounted fee of $295 for attending both Marketing Communications Strategy and Marketing Communications Tactics on consecutive days (course number HP50794A + 008).

"S.A.L.E.S." is a trademark of America's Return Inc.

- *Mining Your Installed Base **(new)*** — Find new, untapped revenue sources. Learn about provocative, new techniques companies are using to dramatically increase profits. New ways to tap into hidden revenue sources and to link product and service offerings are covered. Learn about the ins and outs of customer loyalty, and how to unlock incremental, repetitive, and highly profitable new revenue streams.
- *Strategic Business Planning* — Learn how to develop strategies for long-term success. Develop skills in assessing your marketing situation, identifying assets you can leverage, and differentiating your product from the competition. Prepare a business plan that will inspire and focus your employees.
- *Efficient Advertising Techniques* — Convert ineffective advertising dollars into memorable messages. Learn how to determine how much to spend on advertising, where to spend it, and how. Acquire the skills to recognize persuasive copy, direct the creative activity, and use 10 rules for effective print advertising.
- *Marketing Communications Strategy* — Learn what you should say to customers and how you should say it. Work in teams to review case studies, develop and critique positioning statements, and explore marketing communications options in detail. Learn how to turn marketing strategies into effective communications, choose the right tools for your budget and objectives, and write a winning communications plan.
- *Marketing Communications Tactics* — Learn how to use a variety of media to implement a successful marketing communications program. Find out when to use specific marketing tactics, including advertising, telemarketing, public relations, trade shows, newsletters, and customer seminars — and how to make them cost effective.
  Develop an understanding of how to use trade shows to maximize your company's presence, and how or when to find outside agency assistance. Discover how to establish a realistic budget and evaluate program success.
- *Effective Sales Literature* — Develop a concept that breaks through the clutter. Learn the fundamentals of planning and developing sales literature by focusing on the preproduction stages — research, concept, copywriting, and design. Learn proven, practical ideas. Find out what sales literature can and cannot do, how to develop the "big idea" for your brochure, and how to write provocative copy.
- *Productive Teleprospecting* — Improve market reach and create new sales opportunities by learning the ultimate telephone skills and techniques for selling. Identify and overcome the behavioral traps and pitfalls associated with using the telephone in sales activities. Discover specific how-tos for contacting prospects, developing them into customers, and maintaining relationships.

Hewlett-Packard reserves the right to cancel seminars or change prices, dates, and locations.

1991 Value-Added Business Conference a big splash

HP's "Ride the Wave" VAB Conference at the St. Francis Hotel in San Francisco, California, on April 21-24, was a tremendous success with more than 250 VABs attending. When asked if the conference met their objectives for making the trip to San Francisco and whether it improved their understanding of HP's NewWave Computing strategy, our VABs rated the conference highly (with a score of 4 out of a possible 5 points).

The conference marked several firsts for HP. It was the first VAB conference held in San Francisco and it was the first conference offering sessions for all VABs, both commercial and technical. In addition to hearing from HP's executives about HP's NewWave Computing strategy, the VABs attended workshops on product updates, marketing and sales programs, and building business skills.

The conference highlight was the Monday evening gala event and tradeshow featuring HP's newest products and an exciting trip along the beach boardwalk featuring lots of food and game booths.

Comments from the VABs indicated that they found the conference to be both a valuable learning experience and a fun event. When asked if they would attend a similar conference next year, all of the VABs said, "Yes."

A videotape of the conference general sessions speakers is available from your HP representative.

VAB promotions

The following promotions are specifically for VABs. The promotions featured on pages 6-9 of the main publication also apply to VABs. Contact your HP representative for more information.

Workstations

HP 9000 Model 380 Upgrade

Hall-mark, Lex Electronics, and all OEMs and VARs with existing open OEM/VAR exhibits are eligible to purchase the HP 9000 Model 380 CPU board upgrade (P/N 98244D), which includes 8 Mbytes ECC-RAM, for a nondiscountable price of $3,500. This represents a 50-61% discount off list. Price includes return credit for old CPU and system interface boards.

- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** P/N 98244D
- **Start date:** May 1, 1991
- **End date:** September 30, 1991
- **Promotion number:** 2.534.1

Domain Series 5500 Upgrade

Resellers with current HP contracts who have purchased an HP Apollo/Domain Series 3500, 3550, and 4500 can upgrade to a Series 5500 board for the promotional price of $3,500 (approximately 61% off the list price). The price includes the return credit for the old CPU.

- **Scope:** Worldwide *(check with your HP representative for local availability)*
- **Eligible products:** P/N A1631A
- **Start date:** May 1, 1991
- **End date:** September 30, 1991
- **Promotion number:** 2.536.1

Available literature

The following new literature is available through your local HP sales office. The literature is separated by product line and in order of publication number. Contact your HP representative for more information.

General

VAB Data Kit

- **Audience:** VABs that sell in the U.S. and are part of the U.S. value-added channels (VAC) program
- **Format:** 12 pages, two color
- **P/N:** 5091-1238EUS
- **Description:** The VAB Data Kit contains all the forms and instructions necessary to enter VABs (value-added resellers, distributor authorized resellers, software suppliers, systems integrators, original equipment manufacturers, and complementary tool vendors) with U.S. contracts into the HP VAB database (VALID). Information taken from the VAB Data Kit appears in HP's solutions catalogs and is used as HP's address book for mailing program, product, sales, and marketing information to key VAB personnel.

Revised U.S. VAB program Overview brochure

- **Audience:** VABs that sell in the U.S. and are part of the U.S. value-added channels (VAC) program
- **Format:** 32 pages, two color
- **P/N:** 5091-1500EUS
- **Description:** The April 1991 edition of "Programs for Success for Value-Added Businesses" has been revised and expanded to provide a current overview of the features and benefits available to VABs as part of the U.S. value-added channels program. The new version includes updated information on HP's channels strategies, how to work with the HP sales force, and how to access a variety of HP marketing, financial, and support services programs. The programs described in this brochure are offered to HP software suppliers, value-added resellers, OEMs, systems integrators, distributor-authorized resellers, and complementary tool vendors that leverage HP computer sales in the U.S.

HP 3000

HP Sockets Technical Overview

- **Audience:** end users
- **P/N:** 5951-6979
- **Description:** The overview describes how HP Sockets is used.

The HP 3000 Open System Environment white paper

- **Audience:** Current or potential users of HP 3000 systems who need a detailed understanding of the HP 3000 open systems program.
- **Format:** 34 pages, black and white
- **P/N:** 5952-2490
- **Description:** Updated edition reflects the latest open systems product plans. The paper also includes more detail on POSIX for the HP 3000.

Workstations

Graphics Galore reprint

- **Audience:** HP workstation users
- **Format:** 4 pages, 11 x 14, color
- **P/N:** 5091-1430EUS
- **Description:** *Digital Review* arti-

cle reprint gives a product review of the HP Apollo 9000 Model 425t workstation with VRX color graphics and describes the Model 425t as a glimpse of the future in graphics for low-end workstations, with an appealing price/performance ratio.

HP Apollo 9000 Series 400 pocket guide

- **Audience:** HP workstation users
- **Format:** three fold, 8½ x 14, four color
- **P/N:** 5091-1598E
- **Description:** A quick reference guide to HP Apollo 9000 Series 400 products.

HP Apollo 9000 Model 425e data sheet

- **Audience:** HP workstation users
- **Format:** 8 pages, 8½ x 11, four color
- **P/N:** 5091-1599E
- **Description:** Describes in detail the CPU and graphics technical performance.

HP Apollo 9000 Model 400s, 425s and 433s data sheet

- **Audience:** HP workstation users
- **Format:** 8 pages, 8½ x 11, four color
- **P/N:** 5091-1600E
- **Description:** Describes in technical detail the complete system including CPU and graphics.

HP Apollo 9000 Model 400t and 425t data sheet

- **Audience:** HP workstation users
- **Format:** 8 pages, 8½ x 11, four color
- **P/N:** 5091-1602E
- **Description:** Describes in technical detail the complete system including CPU and graphics.

HP SharedX data sheet

- **Audience:** HP workstation users
- **Format:** 4 pages, 8½ x 11, four color
- **P/N:** 5091-1671E
- **Description:** The data sheet provides technical product details about HP SharedX.

Peripherals

HP typeface products for HP LaserJet, DeskJet, and PaintJet printers scalable type primer

- **Audience:** HP-authorized dealers and supply resellers
- **Format:** 20 pages, full color
- **P/N:** 5091-1327EUS
- **Description:** Provides answers to questions about scalable type. The center opens into a handy matrix to determine the right scaling solution for popular software and HP printer combinations.

HP typeface products for HP LaserJet, DeskJet, and PaintJet printers selection guide update

- **Audience:** HP-authorized dealers and supply resellers
- **Format:** number 10 flier, full color
- **P/N:** 5952-1983D
- **Description:** An update card has been inserted into the flier adding the latest type products and lower list prices. It helps you determine the typefaces that best fit your applications and folds out into a poster of HP typefaces.

X Window Solutions guide

- **Audience:** Functional managers who make purchase decision recommendations; midlevel managers who make purchase decisions; current X-terminal, multiuser, workstation, and multiuser users, value-added software suppliers.
- **Format:** 72 pages, black and white
- **P/N:** 5952-2029
- **Description:** Guide provides a catalog listing of software applications, based on the X Window System, from leading software suppliers and HP that run on host systems supporting HP-UX and Domain/OS operating systems. Each page in the guide includes a profile of the application, contact names, and a list of supported hardware platforms. Revisions are planned twice a year.

HP DIRECT phone numbers

HP's fast-order phone lines provide customers with an easy, direct way to order supplies, accessories, media, furniture, and software from Direct Marketing Division.

Location	Telephone number*
Argentina	781-4061 through 4069
Australia	(08) 339861 (toll free)
Melbourne	(03) 8952861
Austria	(0222) 2500-614 (0222) 2500-615 (0222) 2500-616
Belgium/Luxembourg	(02) 761-31-11
Brazil	(011) 709-1300
Canada	800-387-3154
Toronto	416-671-8383
China	2566888
Denmark	80 30 16 40
Finland	(90) 8872-2361
France	(1) 69 86 17 25
Germany	(0130) 3322
Greece	(01) 672-6090
Hong Kong	(5) 8487569
Italy	(02) 9530 1532
Japan	427-59-1321
Korea	7690-600 7690-700 7690-800
Malaysia	(03) 2986555
Mexico	905-676-7892
Netherlands	(06) 0501
New Zealand	(04) 820400
Norway	(02) 24 60 90
Singapore	279-8824
Spain	(91) 6374013 (91) 6370011
Sweden	(08) 750 24 00
Switzerland	(057) 31 24 90
Taiwan	(02) 7179608
United Kingdom	(0344) 369333
United States	800-538-8787
Venezuela	2394477

*Numbers listed are localized.

Added collaboration means added productivity

Because your organization can work together in real time, you can attain immediate closure on a project issue with fewer errors. Other advantages include:

- investment protection — most existing X protocol based applications can share without modification
- easy access to consultative expertise
- lower cost and setup time of computer-based training and education
- transparent extension to the industry standard X Window System

Supported configurations

This first release of HP SharedX is available for the HP 9000 Series 300 and HP Apollo 9000 Series 400 with HP-UX 7.X. A version for HP-UX 8.0 for these platforms will be available as will a version for the new HP Apollo 9000 Series 700.

HP supports sharing between a workstation with HP SharedX and virtually any other HP workstation running X Windows Version 11 Release 3 or 4.

Product No.	Description
B2305L	HP SharedX license to use for HP 9000 Series 300 or HP Apollo 9000 Series 400
Opt. UA0	Single-user license
Opt. UA3	8-user license
Opt. UA6	24-user license
Opt. UA8	48-user license
Opt. UAA	96-user license
B2305A	HP SharedX media and manuals for HP 9000 Series 300 or HP Apollo 9000 Series 400 HP-UX 7.XX
Opt. AA0	Software on ¼-inch cartridge tape

HP ALLBASE/SQL database products for HP 9000 Series 300 and HP Apollo 9000 Series 400

ALLBASE/SQL database products for the HP 9000 Series 300 and 400 are now orderable in both development and run-time versions and can be purchased with single or multiuser licenses. Also included is ALLBASE/Net, which allows a system to function as either a database server or a database client.

A client license option on the run-time version of the product allows purchase for use as a client. As a database client, an HP 9000 Series 300 or 400 can use the ALLBASE/Net capabilities to access a remote ALLBASE/SQL database while not requiring the installation of all ALLBASE/SQL modules, conserving disk space on the client system.

Relational database performance with ALLBASE/SQL

ALLBASE/SQL products provide the best relational database performance on HP 9000 Series 300 and HP-UX systems. When combined with lower support costs, the performance advantage of ALLBASE/SQL provides a price and performance advantage.

Unlike the ALLBASE/SQL database, ALLBASE/Net is run-time only and client licensing is provided only on the ALLBASE/SQL Run-time product.

Product No.	Description
B2454A	ALLBASE/SQL Run-time for HP 9000
B2455A	ALLBASE/SQL Run-time for HP 9000 Models 340, 345, 350, 360, 370, 375, HP Apollo 9000 Models 400t, 400s, 400dl, 425t, 425dl, 433s.
B2457A	ALLBASE/SQL Development for HP 9000 Models 300, 310, 320, 330
B2458A	ALLBASE/SQL Development for HP 9000 Models 340, 345, 350, 360, 370, 375, HP Apollo 9000 Models 400t, 400s, 400dl, 425t, 425dl, 433s

For more information, contact your HP representative.

HP C/ANSI C compiler Release 8.0 for HP 9000 Series 300 and HP Apollo 9000 Series 400

Beginning with the HP-UX 8.0 release, C development will be centered on a new C/ANSI C environment. This recommended C/ANSI C development environment meets the applicable ANSI (X3.159-1989 ANSI C) and POSIX (P1003.2 Draft 9) standards.

The new HP-UX 8.0 operating environment, HP-UX Run-Time, has a minimal C compiler. If you use the C development environment extensively, you should purchase the new C/ANSI C compiler product (P/N B2371A) or the C/ANSI C developer's bundle (P/N B1863A).

The performance improvements with the HP 9000 Series 300/ HP Apollo 9000 Series 400 HP-UX 8.0 release results in an approximate 25% increase over Release 7.0 in each of the Dhrystone and SPECmark ratings.

Changes and enhancements with the HP 9000 Series 300/HP Apollo 9000 Series 400 Release 7.40 compilers add debug support for C++ and compatibility with the HP 9000 Series 800 debug format, as well as optimizing the performance of the HP Apollo 9000 Series 400 workstations. These improvements were achieved as a result of being independent of an HP-UX operating system release.

Software support service costs reduced

Software support service costs have been reduced as a result of creating the HP-UX Run-Time Environment with only the minimal C compiler functionality and without the program development tools for X11, OSF/Motif, and Starbase Graphics. Depending upon the configuration and service, there can be up to an approximate 57% reduction in service costs. If software support services are needed for the stand-alone C/ANSI C product (P/N B2371A), there is no additional charge unless update materials, such as software media or manuals, are required. There is an additional software support service charge for the HP-UX C/ANSI C Developer's Bundle (P/N B1863A).

By offering the C/ANSI C compiler as a separate product, HP can better protect your investment by providing continued compiler enhancements and maintenance. If you receive the HP-UX software update (P/N 98594L or 98597L), you get C compiler functionality equal to or more than what you have with your current product. The functionality continues to be a subset of the existing C/ANSI C products (P/N B1700L, Release 7.0 and P/N B1690A, Release 7.40).

The HP-UX 8.0 software update of the C compiler functionality is a one-time offering to current users. Future HP-UX Run-Time updates will contain only the minimal C compiler. At contract renewal, if you want future C/ANSI C updates, you will need to purchase the C/ANSI C Release 8.0 compiler product (P/N B2371A) and add it to your software support contract.

Product No.	Description
B2371A	HP C/ANSI C license to use
Opt. AAU	CD certificate
Opt. AA0	Cartridge tape, ¼-inch
Opt. 0B1	Hard-copy manuals
B1863A	HP-UX C/ANSI C developer's bundle
Opt. AAU	CD certificate
Opt. AA0	Cartridge tape, ¼-inch

Note: refer to P/N B1864A for documentation on CD-ROM.

OSF/Motif is a trademark of Open Software Foundation, Inc. in the U.S. and other countries.

Easy-to-access FORTRAN/9000 on-line reference

For the U.S. only

Provided with the 8.05 HP-UX FORTRAN release for the HP 9000 Series 700 computers (P/N B2408A), the new FORTRAN/9000 on-line reference is piggybacked onto the HP VUE help system. The FORTRAN on-line reference covers compile-line syntax, compile-line options, compiler directives, data elements, and FORTRAN statements.

Designed for various levels of expertise, the on-line reference allows you to access information from alphabetical listings or from functional categories. HP VUE's snapshot feature duplicates windows of information for future reference or for printing. The "See Also" feature presents a list of related topics that can be accessed from the current screen. HP VUE's "Search Option" allows you to search for a specified text string within the current window.

To keep you from getting lost, HP VUE's navigation features can take you back to where you've been and to where you started. The most current index help list remains displayed in a smaller window.

To load the on-line reference files, select the FORTRAN-DOC file set from the PROG-LANGUAGES partition when updating your system. To access the on-line reference once the files are loaded on your system and HP VUE is running, click on HP VUE's question mark, select Application Information, and then select FORTRAN.

Contact your HP representative for more information.

HP-IB adapter for HP Apollo 9000 Series 700 workstations

The HP EISA HP-IB adapter (P/N 25560A) allows connection of HP-IB devices to EISA-based HP Apollo 9000 Series 700 workstations. The adapter, which complies with the IEEE-488-1978 and IEEE-488A-1980 standards, allows you to migrate your HP-IB devices to the newer EISA-based HP Apollo 9000 Series 700 computers. Some of the adapter's features include:

- support of up to 14 standard-speed devices, 7 high-speed devices
- maximum burst transfer rates of 1 Mbyte high speed, 500 Kbytes standard speed
- maximum cable length of 15 meters for high-speed operation and 20 meters for standard-speed operation
- software configurable parameters including operating speed, HP-IB bus address, HP-IB system controller capability
- user installable

HP-IB cables are not provided and must be ordered separately.

For an HP Apollo 9000 Model 720, an EISA upgrade kit is required. The kit adds one EISA slot to the Model 720. At inital release, the HP 22560A will support the HP 9144/45 ¼-inch cartridge tape drives and electronic plotters.

HP Apollo 9000 Series 400 factory special EISA upgrade

If you have an HP Apollo 9000 Series 400 and would like to add the EISA expansion bus, there is an HP Apollo 9000 Series 400 EISA factory special field upgrade (P/N S1460A) that will either add four EISA slots or convert four EISA slots to four EISA slots on your HP Apollo 9000 Model 433s, 425s, or 400s with a 68040 upgrade. EISA and DIO are currently HP's most popular backplanes for the HP Apollo 9000 Series 400 workstations. EISA is the long-term strategic bus.

Features and benefits

The factory special allows you to add the EISA backplane in the field at the same price as the factory-installed option. This offers you flexibility to add the EISA backplane at your convenience.

Installation and support

The upgrade is user installable and includes installation documentation. It is supported on all HP Apollo 9000 Models 433s, 425s, and 400s (with 68040 upgrade) workstations that do not have Option AL0 (3-slot DIO expander) installed. HP-UX 7.05 or Domain/OS SR 10.3 with PSK 8 or later is required.

HP-UX driver development guide available

The HP-UX driver development guide (DDG) is available to assist you in the design of HP-UX drivers (EISA, VME, DIO) for HP 9000 Series 300 and HP Apollo 9000 Series 400 and 700-based systems. If you are interested, you should also consider HP Factory Consulting Services as a complement to this process. To get more information about these services, contact your HP representative.

Product No.	Description
98577-90012	HP-UX driver development guide (DDG) for HP 9000 Series 300/HP Apollo 9000 Series 400 computers — Available now from HP DIRECT, manual includes information on how to write a DIO, VME, or EISA driver (HP Apollo 9000 Series 400 only).

HP-UX 7.5 or 8.0 is required for the HP Apollo 9000 Series 400. HP-UX 8.05 is required for the HP Apollo 9000 Series 700.

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HP and Lotus deliver PC power with 11-ounce palmtop computer

The new HP 95LX palmtop PC is a standards-based, handheld computer that combines PC power and Lotus 1-2-3 with calculator convenience. It features one-key access to all applications, a suite of built-in organizer tools, support for third-party applications, and extensive communications capabilities.

Information access and analysis anywhere

The HP 95LX is the first palmtop PC that offers built-in Lotus 1-2-3 integrated with HP financial calculation, personal information management, and data communication tools to improve your productivity. You can track appointments and assignments, edit letters and reports, handle complex calculations, access electronic information services, and organize phone numbers and addresses. You can print data from the HP 95LX applications to an HP LaserJet printer, and other compatible printers.

Designed to work as an extension of desktop and laptop PCs, the HP 95LX has power and portability, making it an ideal companion to desktop and laptop PCs. With the optional connectivity pack, you can download worksheets and other files from PCs for data analysis anywhere you are. With Lotus 1-2-3 Version 2.2 and MS-DOS 3.22 executable from ROM, most of the computer's 512 Kbytes random access memory (RAM) is dedicated to file creation and file storage.

PC power, calculator convenience

Listed below are some of the major features that provide you with the power of a PC and the convenience of a calculator:

- PC/XT architecture
- 80C88 compatible CPU (NEC V20H)
- QWERTY keyboard and separate numeric keypad
- checkbook size — lightweight — 11 ounces (312 g)
- battery requirement — two AA batteries last up to two months
- HP advanced financial calculator — operates in algebraic or reverse Polish notation data entry modes
- appointment book/phone book
- memo editor
- world time clock
- built-in data communications
- serial port — connection to RS-232-C devices
- infrared communication between HP 95LX palmtop PCs
- optional connectivity pack — file transfers between the HP 95LX palmtop PC and desktop PCs

The system's plug-in application card slot for ROM/RAM memory cards supports the Personal Computer Memory Card International Association 1.0 and Japanese Electronic Industry Development Association 4.0 international standards, allowing extensive application development by independent software vendors.

Product No.	Description
F1000A	HP 95LX palmtop PC
F1001A	HP 95LX connectivity pack
F1002A	128-Kbyte RAM card
F1003A	512-Kbyte RAM card

For presale information in the U.S., call 800-443-1254.

Lotus and 1-2-3 are U.S. registered trademarks of Lotus Development Corporation.

HP Vectra PC prices reduced

Effective June 1, HP is reducing the price of selected PC and accessory products by up to 33%. The following is a list of the products effected:

- HP Vectra 286/12 Models 1, 20, 40 PC
- HP Vectra QS/16S Models 1, 40, 80 PC
- HP Vectra QS/20 Models 1, 47, 87 PC
- HP Vectra 386/25 Models 1, 80, 170 PC
- HP Vectra RS/25C Models 1, 170, 330 PC
- HP Vectra 486/25T Models 1, 170, 440, 670 PC
- HP Vectra 486/33T Models 1, 170, 440, 1000 PC
- 42-Mbyte, 84-Mbyte, 120-Mbyte, 168-Mbyte, 336-Mbyte HDD-IDE
- 330-Mbyte, 440-Mbyte, 670-Mbyte HDD-ESDI
- 670-Mbyte, 1-Gbyte HDD-SCSI
- EISA SCSI HBA, ESDI controller, and Super VGA adapter

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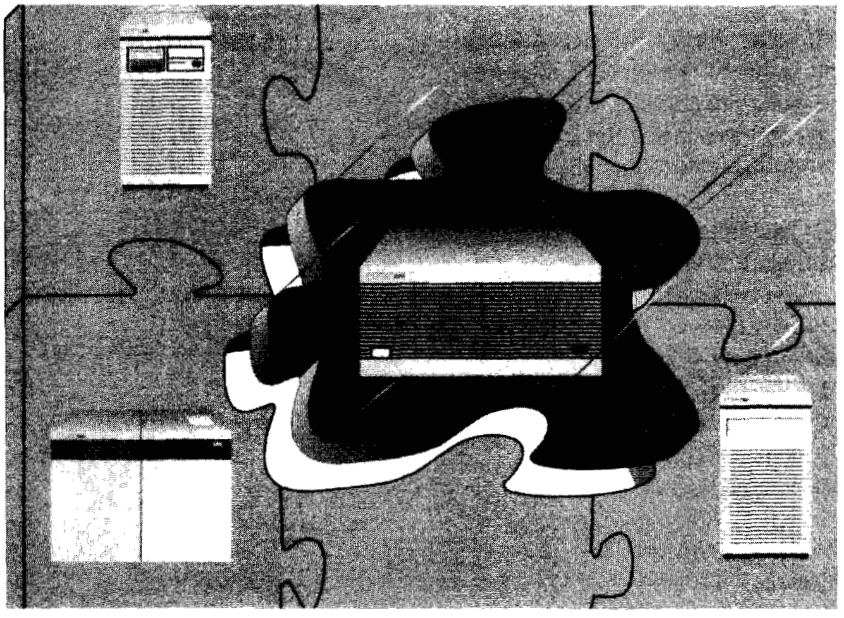
New multivendor connectivity with HP's family of DTCs



The HP DTC/9000 and DTC/3000 have been combined into a single dual-protocol multivendor communication server. The DTC provides connectivity in HP and multivendor environments. To meet the needs of different environments, HP offers two levels of network/device management: host-based device management for HP stand-alone system configurations; and HP OpenView Windows (PC-based) for HP systems and multivendor multiple system sites.

With the new PC-based HP OpenView DTC Manager software Release 10.5, the DTC becomes a multivendor communication server optimized for the HP environment. It provides consistent, location-independent access (over X.25 or extended LANs) to HP and non-HP systems; combined benefits of standards and optimized protocols; and powerful network management allowing multiple device management at a very competitive price.

In addition to the currently available DTC functions, the PC-based HP OpenView DTC Manager release 10.5 provides:

- *Support of industry-standard Telnet (TCP/IP)* — Multivendor connectivity allows investment protection through the ability to share resources.
- *Interoperability test package for field certification of multivendor networks (available in August 1991)* — Assurance of multivendor connectivity guarantees investment protection.
- *Access from DTC to remote system over IP networks* — Supports remote LAN configurations, increases network flexibility, capacity to grow, and security, while decreasing costs.
- *Access to systems via Telnet from X.25 PAD* — Offloads UNIX systems from processing X.25 PAD protocols reducing cost and CPU overhead; shared X.25 link between multiple systems also reduces cost.
- *Homogeneous system access for local and remote (extended LANs and X.25) end users* — Provides additional network flexibility and end-user productivity through location independent access.
- *Multisession, network symbolic names resolution (via DNS), friendly user interface* — Increases end-user productivity and ease of use.
- *Scalable HP OpenView DTC management* — Choice of host or PC-based DTC management (depending on environment) contributes to optimized operating and equipment costs through the ability to manage multiple devices from one location (PADs, switches, and DTCs). During 1991, bridges and hubs also will be manageable from the central management workstation.
- *Compatibility with existing HP DTC16 and DTC48 hardware* — Allows your current investments to be protected.

Requirements for DTC users

- *HP DTC16 hardware* — no specific requirements
- *HP DTC48 hardware* — DTC48 with date code less than 3110 requires the HP 2348A hardware upgrade to take advantage of the new DTC multivendor functionalities (see "New HP DTC48 upgrade kit" article in this issue of *HP Computer Update*).
- HP OpenView DTC Manager software — must be updated to the 10.5 release (see "HP OpenView DTC Manager Release 10.5 has increased functionality" article in this issue of *HP Computer Update*).

New HP DTC48 upgrade kit

A hardware upgrade is now required for any HP DTC48 purchased before March 26, 1991 (date code less than 3110). Any DTC48 shipped after this date does not require the hardware upgrade. The DTC16 does not require an upgrade.

The HP DTC48 upgrade kit (P/N 2348A) provides the required hardware and firmware to support the new functionalities introduced by the HP OpenView DTC Manager Release 10.5. The kit has an enhanced asynchronous card that replaces the existing one located in slot #0. The upgrade kit does not require an additional slot. The card must be installed by an HP representative.

Questions and answers

What happens if I use the HP OpenView DTC Manager Release 10.5 with a nonupgraded DTC48 with a datecode that is less than 3110?

If your HP DTC48 is a DTC48/3000, it will operate at the level of functionality provided with the HP OpenView DTC Manager Release 6.0. If your DTC48 is a DTC48/9000, it is mandatory to upgrade it as HP OpenView DTC Manager Release 10.5 no longer supports DTC48/9000.

Why do I need the upgrade kit?

With the upgrade kit, any existing HP DTC48 becomes a multivendor communication server. The coexistence of the two protocol stacks (full standard Telnet/TCP/IP and AFCP), the Pad-to-Telnet protocol conversion, and new functionalities such as multisession/symbolic names addressing/support of routers require additional memory. The DTC48 has been improved as of date code 3110 to provide this memory, as has the DTC16, which is a more recent design. The upgrade kit illustrates HP commitment to protect your investments.

What is the difference between the upgrade card and the card provided as an option of the HP ARPA Telnet Access card (HP 2347A)?

There is no difference. The memory requirements are the same for the coexistence of the two protocol stacks and for the protocol conversion from Telnet to AFCP provided by the HP ARPA Telnet Access card.

Product No.	Description
2348A	DTC48 upgrade kit, memory extension for the HP 2345A with datecode less than 3110, one upgrade kit required per DTC48

HP OpenView DTC Manager Release 10.5 has increased functionality

With release 10.5 of the PC-based HP OpenView DTC Manager, (P/Ns D2355A and 32054B Opt. 201), HP DTC16 and DTC48 become multivendor communication servers optimized for the HP environment, and provide consistent location-independent access to HP and non-HP systems.

Listed below are some of the management functions of HP OpenView Manager release 10.5, and the associated benefits:

- Configuration management — dynamic configuration of most HP DTC parameters, configuration of DTC functionality. This reduces costs associated with managing network configuration, and increase network and systems availability.
- Fault management — centralized on-line status for each HP DTC. Activation of ping request to any IP node to verify the connection path, configurable backup IP gateway and DNS addresses. This maximizes network uptime and facilitate troubleshooting of DTCs.
- Performance management — configurable retransmission timers and packet lengths. You get the best performance by optimizing terminal I/O and management traffic depending on the network environment.

- Security management — limitation of terminal switching and multisession capability per DTC user port. Information access is limited to selected users.

The following is a list of HP OpenView DTC Manager release 10.5 management tools, and the advantages they provide:

- Intuitive graphical interface based on HP OpenView Windows — reduces training costs (leverage for all HP OpenView applications), increase operator productivity.
- Seamless integration of HP DTCs, switches, and PADs management under HP OpenView (soon bridges, hubs, and HP 3000) from a single HP OpenView PC — facilitates support and optimize operation costs.
- Backward compatibility with previous releases — protects your investment.
- Tool provided to migrate the previous HP OpenView DTC Manager releases to the 10.5 release — eases migration and maximizes network uptime.

Configuration/migration information

The PC-based HP OpenView DTC Manager 10.5 release runs with the current software version of the HP OpenView PC workstation. For details on the required software updates, refer to "MS-Windows 3.0 and HP OpenView/DOS 4.0 required for HP OpenView DTC Manager Release 10.5" and "OpenView Windows Workstation now has an easy upgrade" articles in this issue of *HP Computer Update.* HP OpenView DTC Manager is supported on a subset of the PCs supported by HP OpenView. This subset now includes the HP Vectra 486 PCs in addition to the HP Vectra 286 and 386 PCs, IBM PS/2 Model 55, and Compaq DeskPro 286/20e PCs previously supported.

This release replaces HP OpenView DTC Manager Release 6.0. (See "New HP DTC48 upgrade kit" in this issue of *HP Computer Update.*) Support will continue for the HP OpenView DTC Manager Releases 4.0, and 6.0. HP OpenView DTC Manager Release 10.5 includes a tool to facilitate migration from any previous release of HP OpenView DTC Manager.

If you bought the subscription services of the HP OpenView DTC Manager (P/N D2355A), you will automatically receive the new release. The HP OpenView DTC Manager application can be ordered separately, or along with the HP OpenView Windows Workstation (P/N 32054B Opt. 201). Contact your HP representative for more information.

More X.25 connectivity solutions for HP 9000 systems

You now have a broader choice of solutions for your HP 9000 requiring X.25 connectivity. You can select the one most appropriate for your system environment and communication needs. The X.25/9000 product (P/Ns 36960A, 36941A) now provides PAD emulation and remote PAD printer support. This comes along with the HP-UX 8.0 revision. Through the use of the DTC/X.25 product which provides a Padsup to Telnet converter, PAD users can access HP 9000 systems, other HP systems, and non-HP systems. This is included with the DTC Release 10.5 and will be available under HP Openview DTC Manager.

The X.25/HP 9000 product is suited for homogeneous HP 9000 environments, as well as client/server environments where system-to-system communication is required. In heterogeneous environments (LAN with HP 3000, 9000, and/or other systems) where remote end-user access is required and the DTC is the terminal connect solution, the DTC/Padsup-to-Telnet converter provides you with a cost-effective solution. For multiple system environments where end-user access and system-to-system communication are required, the performance of batch and interactive can be maximized by using both solutions.

X.25/9000 features with HP-UX 8.0

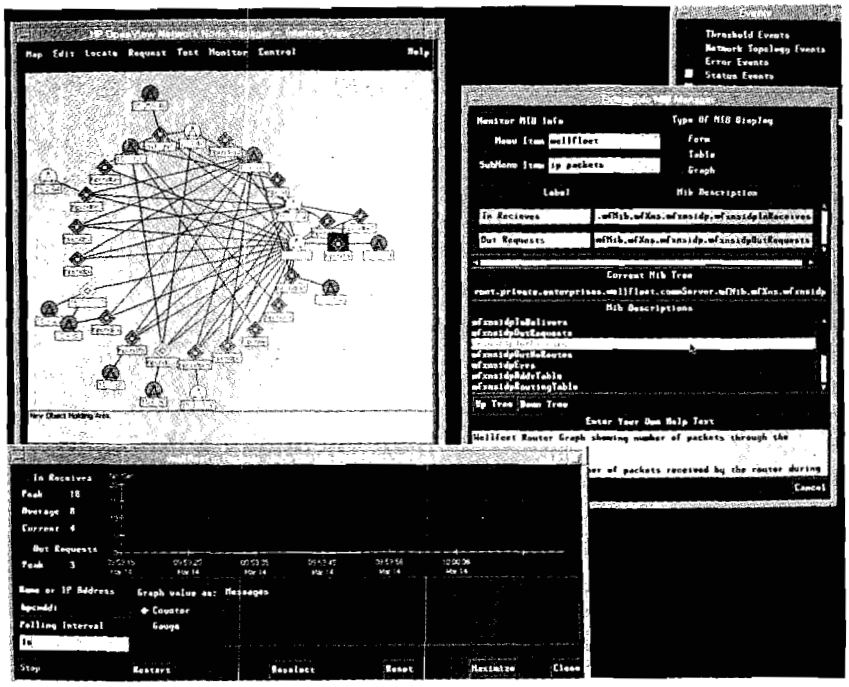
- PAD support
- PAD emulation
- UUCP (UNIX to UNIX copy) over X.25
- supports TCP/IP and OSI transports and services including ARPA, NS, and X.400
- programmatic access to level 3

DTC/X.25 features (HP 9000 connectivity)

- multivendor Padsup-to-Telnet converter (HP 9000 and other vendor systems implementing the Telnet/TCP/IP stack) — Padsup-to-DTC back-to-back connected systems; HP and non-HP systems without Telnet/TCP/IP stack
- multisystem access support — switching
- printer sharing between multiple HP 9000 systems
- extended LANs support — level 3 IP routers, bridges
- multiple symbolic network names addressing — DNS, NS, IP addresses
- HP Openview workstation based network management — HP Openview DTC Manager

The Padsup-to-900 Series HP 3000 optimized protocol converter and X.25 system-to-system communication for the 900 Series is also available with the DTC/X.25 network link.

HP OpenView Network Node Manager helps manage large networks



The OpenView Network Node Manager provides network and systems management of multivendor TCP/IP networks on a site or campus. The 2.0 release provides one-minute network management capabilities including Discovery, Single-View Management, and the Application Builder. With these automated and dynamic network management features, HP OpenView Network Node Manager greatly reduces the time and effort you spend managing your networks and systems, and offers help for the critical problems faced in deploying large networks.

Network managers can monitor the health of their network at a glance

In less than a minute, HP OpenView Network Node Manager automatically begins to discover, map, and continuously monitor all network and system resources across a TCP/IP network. As the network changes, the Discovery capability automatically shows the changes and updates the network map. Node Manager can also report historical network information for planning and troubleshooting.

Increased productivity in monitoring, locating, and fixing network problems

The 2.0 release integrates new, existing, or third-party applications at the menu bar into the HP OpenView user interface and network map. The ease of use capability protects your current investment and puts control of the network into a single, consistent view. You have increased productivity in monitoring, locating, and fixing network problems through a single map that manages both the network devices and the TCP/IP network.

Applications to manage network devices and resources can be created in minutes

The Application Builder is a powerful productivity feature that allows users or developers to build applications quickly to manage network devices and resources that use the multivendor Simple Network Management Protocol (SNMP). With the Application Builder, you can create a management application to display network device information graphically, and execute programs to handle network alarms without any programming, in as little as one minute. This powerful tool encapsulates the expertise of the network administrator into the HP OpenView solution. User documentation may be entered, and is automatically integrated into the indexed, on-line user documentation facility.

The HP OpenView Network Node Manager is available on HP-UX, Sun Microsystems. You can install it yourself.

The HP OpenView Network Node Manager Release 2.0 is P/N B1009A for HP 9000 Series 300 and HP Apollo 9000 Series, and P/N B1024A for HP 9000 Series 600 and 800 and HP Apollo 9000 Series 700.

For more information, contact your HP representative.

MS Windows 3.0 and HP OpenView/DOS 4.0 required for HP OpenView DTC Manager Release 10.5

HP OpenView DTC Manager Release 10.5 is now available offering new DTC and DTC management functionalities. This release requires Microsoft® Windows 3.0 and HP OpenView/DOS 4.0 for operation. (Release 6.0 is supported with MS Windows® 3.0 and HP OpenView/DOS 4.0, or MS Windows 2.11 and HP OpenView/DOS 3.0.)

If you purchased the HP OpenView DTC Manager as an option to the HP OpenView Windows workstation (P/N 32054B), MS Windows 3.0 and HP OpenView/DOS 4.0 are included in the workstation.

If you have not upgraded to these releases, purchase and install them now to get the new functionality of HP OpenView DTC Manager Release 10.5.

The HP OpenView Windows workstation upgrade (P/N D1824 Option 201) includes HP OpenView/DOS 4.0, MS Windows 3.0, and HP OpenView DTC Manager 10.5. The upgrade will be available in July.

Microsoft and MS Windows are U.S. registered trademarks of Microsoft Corporation.

HP OpenView Windows workstation upgrade

If you bought HP OpenView DTC Manager, System Manager, or Switch/PAD Manager through the OpenView Windows workstation (P/N 32054A/B), there is now an easy way to upgrade to the latest software. HP OpenView Windows upgrade (P/N D1824B) for HP OpenView Windows workstation provides the latest software versions at a price 30% below the normal price. Because the product is an upgrade, it is available only to those who already have the HP OpenView Windows workstation product.

The upgrade basic product supplies the software found in the workstation basic product. The upgrade's options provide the software for the same option in the workstation. This product does not upgrade any hardware.

Product No.	Description
D1824B	HP OpenView Windows workstation upgrade
Opt. 201	HP DTC Manager upgrade
Opt. 202	HP System Manager upgrade
Opt. 204	HP Switch/PAD Manager upgrade (1-4 nodes)
Opt. 205	HP Switch/PAD Manager upgrade (5-10 nodes)
Opt. 206	HP Switch/PAD Manager upgrade (11 or more nodes)

DS networking products replaced

The DS product family has been replaced with the NS product family, which has several benefits over DS. Benefits include communication with 900 Series HP 3000 systems, new networking applications, enhanced capabilities, transparent access over multiple nodes and between networks, programmatic interface for customized applications, and industry-based protocols.

As of August 1, DS products will be discontinued. The following is a list of replacement product numbers.

Product No.	Description	Replacement
30270A	DS Point-to-Point Link	ThinLAN 3000/V Link direct connect (P/N 30240A) NS Point-to-Point Link (P/Ns 30284A/85A)
30271A	DS Point-to-Point Link, modem connect	NS Point-to-Point Link (P/Ns 30284A/85A)
32185A	DS Network Services	NS 3000/V Network Services (P/N 32344A)
32187A	DS X.25 Network Link	NS X.25 3000/V Network Link, P/N 24405A
32188A	Satellite Network Link	None

Support for DS products will continue through August 1996. The DS to NS migration solution can help you migrate to the NS product family. For more information, contact your HP representative.

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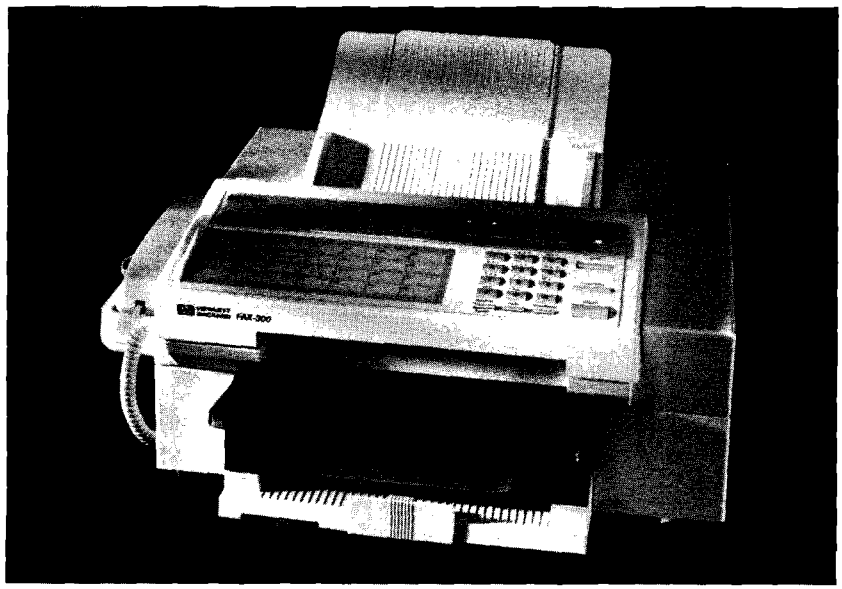
Introducing the HP FAX-300 — HP's new plain paper fax

For the U.S. and Canada only



The new HP FAX-300 (P/N C2111A Opt. ABA) is a standalone plain-paper fax machine that uses ink-jet technology. Without special thermal paper requirements, the HP FAX-300 can use either letter or legal size paper. This means no more curling paper, and no need to photocopy the fax prior to filing, refaxing, or signing — saving you both time and money. The HP FAX-300 has a top modem speed of 9,600 bits per second, and it automatically redials a busy number up to 15 times at three-minute intervals. Other dialing features include:

- 100 abbreviated speed-dial codes, including 24 one-touch dial keys
- delayed dialing, so you can send up to 100 transmissions at preset times
- sequential broadcasting for sending transmissions to as many as 100 present locations
- sequential polling, enabling the HP FAX-300 to call as many as 100 locations to pick up waiting transmissions

Documents are automatically stored in memory when the fax is receiving multiple transmissions or the paper tray is empty. Numbered password codes allow for sending and receiving confidential documents, which are stored in memory until the password is entered. With 512 Kbytes of resident memory, 28 pages can be stored in memory, and more memory can be added. Built-in remote diagnostic functions help solve most transmission problems by phone, reducing downtime. The HP FAX-300 comes with a limited one-year warranty, and is available from HP authorized dealers.

Mass Storage

HP EISA SCSI-2 fast/ differential host bus adapter card

The HP 25525A EISA SCSI-2 fast/ differential Host Bus Adapter (HBA) card (P/N 25525A) allows you to connect SCSI differential disk drives to the EISA bus on the HP Apollo 9000 Series 700. It provides a high-performance disk-connect solution, and flexibility for cabling and disk system placement. Features and benefits include:

- *Higher performance* — 10-Mbyte burst performance; access to high-performance HP Series 6000 Models 670SX and 1350SX disk systems; and dedicated disk connect solution.
- *Cabling flexibility* — support for up to 25 meters of total SCSI-2 cable length.
- *Added disk capacity* — supports up to seven differential SCSI-2 devices on each HBA.
- *Software configurable* — can be configured using a software utility; it does not require use of jumpers.
- *User installable*
- *Operating system support* — supported on HP-UX 8.05 or later.

The HP 25525A can be ordered two ways:

- As an add-on product to the HP Apollo 9000 Series 700 systems — includes host adapter card, external low-density differential terminator, and manuals for the installation and service of the HBA.
- As an option (Opt. ALE) to the HP Apollo 9000 Series 700 systems — HP installs and configures the EISA SCSI-2 Fast/Differential HBA into the Series 700 being ordered.

Note: An EISA slot must be ordered separately for the EISA upgrade kit (P/N A1986A) that adds one EISA interface slot for the HP Apollo 9000 Model 720. SCSI cables are not provided.

EZTape software enhancements and localization option changes for 40- and 120-Mbyte tape drives

The 40- and 120-Mbyte tape drives (P/Ns D1671A and D2045A) now have DOS EZTape software Version C.00.00, which provides for significant increases in capacity, performance, and Novell networking capability in the 120-Mbyte drive. Listed below are some of the key features of this new software revision:

- *Data compression* — EZTape's software algorithm now permits you to expand the capacities of your tape drives by two times on average; actual compression values vary depending on the type of data (graphic or text). Now 40- and 120-Mbyte drives can effectively become 80- and 240-Mbyte products.
- *Novell NetWare support* — EZTape now provides backup support for Netware 286 Version 2.15c and Netware 386 Version 3.1. This is beneficial for small LAN users who want to use the 120-Mbyte drive with data compression. Backup of network bindery and trustee rights are included, plus the backup of empty directories. Only backups to network clients are supported with EZTape.
- *Multivolume backups* — Files may be selected from any and all hard disk volumes during a backup operation.
- *Tape librarian utility* — The new EZLib utility available with EZTape Version C.00.00 stores and manages directory information from tapes that are used with the EZTape program. This allows easy maintenance of a tape library that can be used to retrieve tape content information.
- *Hard disk buffering* — EZTape now utilizes the hard disk for the buffering of backup data, providing for a significant improvement in the speed of backups.
- *EZINFO utility* — Diagnostic software program displays information about the tape drive equipment installed on your PC.

Product No.	Description
D1671A	40-Mbyte tape drive, includes English, French, and German multilingual manuals and software
D2045A	120-Mbyte tape drive, includes English, French, and German multilingual manuals and software

Effective June 1, language options for both products were discontinued. Both products now have multilingual manuals and software. Each product contains software for OS/2 support, Version B.00.00, and MS-DOS.

Mass storage trade-in credits

Hewlett-Packard has new trade-in credits people who want to change from current mass storage products to the HP Series 6300 Model 20GB/A optical disk autochanger (P/N C1700A). These credits are effective now, and you have up to six months change from your current mass storage. The following products are eligible for the trade-in credits.

Tape drives

- HP 7970EN
- HP 7974AN
- HP 7978BN
- HP 7979AN
- HP 7980AN
- HP 7980XCN
- HP 7976AN (other HP and non-HP ½-inch tape drives)
- HP 9144AN
- HP 9145AN
- HP ¼-inch autochanger (P/N 35401AN)
- HP Series 6400 Model 1300H HP-IB DAT drive (P/N C1511AN)
- HP Series 6400 Model 1300S standalone SCSI DDS tape drive (P/N C1512AN)

Disk drives

- HP 7933N (for HP 7933/35/36/37 disk drives)
- HP 9133N (other HP and non-HP disk drives)

Only one tape drive can be traded in for each optical disk autochanger purchased and up to three disk drives can be traded in for each optical disk autochanger.

Printers

Intellifont-for-Windows 3.0 Version 1.01 available for HP LaserJet III printers

For the U.S. and Canada only

Intellifont-for-Windows 3.0 is currently the fastest-printing, font-scaling solution available for HP LaserJet III family printers and Windows 3.0 applications (via the latest HP LaserJet III printer family, Windows 3.0 printer driver, version 3.77). Intellifont-for-Windows 3.0 Version 1.01 now offers:

- Printer driver support in Windows 3.0 for HP LaserJet IIIP and IIISi printers.
- High-quality (WYSIWYG) screen fonts, allow you to view printed documents before they print. Your output appears the way you want the first time you print.
- On-the-fly font scaling without ever leaving your Windows 3.0 application. And because fonts are generated on-the-fly, you don't need to use hard disk space to store them.
- All the benefits of scalable type, giving you the ability to add personality and stature to documents.

If you are in the U.S. or Canada, call 303-353-7650 to order free copies of Intellifont-for-Windows 3.0.

Network printer interfaces for HP LaserJet II, IID, III, and IIID printers

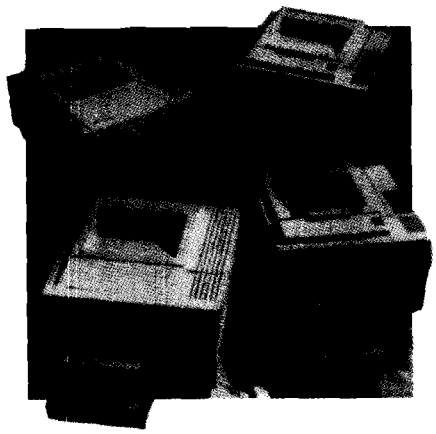
Now, with HP's expanded line of network printer interface cards, you can easily connect HP LaserJet II, IID, III, and IIID printers anywhere on a LAN. The new cards are designed for Ethernet or Token Ring (4 or 16 Mbit) networks running Novell NetWare or 3Com 3+OPEN. The user-installable interface cards slide into the optional I/O slot located in the rear of the printer. Features include:

- *Location flexibility* — HP Network Printer Interfaces allow printers to be placed where they are needed — close to users. It is estimated that more than half of the HP LaserJet printers on LANs today are physically connected to the file server, which is often in an inconvenient location. By eliminating the physical connection to the file server, printers may be located in the workgroups served, and network administrators can restrict access to mission-critical file servers.
- *Improved performance* — Higher-performance printing solutions are needed now more than ever before. The network printer interface improves LAN printing performance in two ways.

First, complex documents print faster. The network printer interface transfers data two to three times faster than typical parallel interfaces. Improved data transfer rates from the network allow the HP LaserJet printer to print graphics-intensive documents faster. When compared to a printer connected to a file server, users gain an even greater speed advantage. For example, five full-page, scanned images are sent to identical HP LaserJet III printers. One is connected with a Network Printer Interface, the second by parallel cable to a high-performance server. The printer with the network printer interface will print all five pages in the time it takes the other printer to complete the first page.

Second, the load placed on the file server is reduced. The HP Network Printer Interface transfers data in large blocks. By comparison, a parallel interface transmits data one byte at a time; every one-byte transfer requires file server interaction. LAN performance is improved overall with the Network Printer Interface because the faster, more efficient communication allows the file server to spend less time on network printing and more time on its other functions.

- *Better network diagnostics* — The interface collects network statistics and networkwide error messages, which can be referenced on the printer's status page. The interface also provides diagnostic information to network administration utilities such as Novell's COMCHECK.



Product No.	Description
C2071A	Ethernet/802.3 for Novell Netware, thin coax
C2071B	Ethernet/802.3 for Novell Netware, 10BaseT
C2071C	Ethernet/802.3 for 3Com 3+Open, thin coax
C2071D	Ethernet/802.3 for 3Com 3+Open, 10BaseT
C2071E	Token Ring for Novell Netware
C2071F	Token Ring for 3Com 3+Open

With the introduction of the HP Network Printer Interfaces, the HP 33480A is being discontinued. The lower-priced, higher-performance, internal Network Printer Interfaces replaces it.

Contact your authorized HP dealer, or your HP representative for more information.

Courier Intellifont Scalable Typeface offers fixed-pitch typeface in a variety of point sizes

If you require the benefits of a fixed-pitch typeface in a wide variety of point sizes for spreadsheets, databases, forms, and word processing, Courier Intellifont Scalable Typeface (P/N 36596B Opt. 433) is now available in four treatments: Courier, Courier italic, Courier bold, and Courier bold italic. The fixed-pitch scalable typeface gives you the ability to format documents that require fixed-pitch typefaces in sizes other than the two (10 and 12 point) offered in the HP LaserJet III printer family. Four treatments offer additional variety for your reports and presentations.

The Courier Intellifont Scalable Typeface is designed to work with HP LaserJet III, IIID, IIIP, and IIISi printers.

HP DeskJet printer font cartridge obsolescence

Effective June 1, the following HP DeskJet printer font cartridge products were obsoleted. Both products were introduced with the HP DeskJet printer (P/N 2276A). Listed below are substitute and replacement products for these font cartridges.

Product No.	Description	Substitute	Replacement
22706G	Helvetica 4-10	For HP DeskJet printer (P/N 2276A) users — Times Roman/Helvetica soft font (P/N 22708C) and the 256K RAM cartridge (P/N 22707B)	For HP DeskJet Plus (P/N 2277A) and DeskJet 500 (P/N C2108A) printer users — Helvetica 4-14 point (P/N 22706T)
22706P	Times Roman 6,12	For HP DeskJet printer users — Times Roman/Helvetica soft font (P/N 22708C) and the 256K RAM cartridge (P/N 22707B)	For HP DeskJet Plus and DeskJet 500 printer users — Times Roman Collection (P/N 22706R). CGTimes 12-point is built into the HP DeskJet 500 printer.

HP LaserJet IID printer discontinued

For the U.S. and Canada only

Effective June 1, 1991, the HP LaserJet IID printer (P/N 33447A) is discontinued. The HP LaserJet IIID printer (P/N 33459A) replaces the HP LaserJet IID printer by offering all the advanced paper handling found in the HP LaserJet IID printer, plus PCL 5 printer language and Resolution Enhancement technology.

Terminals

Upgrading HP 700/X terminals to new HP 700/RX RISC X stations

If you have HP 700/X terminals, you can now upgrade your units to the new HP 700/RX family of RISC X stations. Effective June 1, you can upgrade A or B versions of the HP 700/X processor unit to a monochrome, intermediate, or high-performance color HP 700/RX station. You can use your current keyboard, mouse, monitor, and memory, and can also keep your HP 700/X processor base unit.

When placing orders for the upgrade products listed here, you *must* supply the serial number of your HP 700/X terminal to be eligible for the upgrade.

Product No.	Description
C2712A	Monochrome upgrade — upgrades an HP 700/X terminal processor base unit (P/Ns C2302A, C2305A/B) to an HP 700/RX Model Mi with 2 Mbytes DRAM
C2713A	Color intermediate performance upgrade — upgrades an HP 700/X terminal processor base unit (P/Ns C2303A/B, C2304A/B, C2307B) to an HP 700/RX Model Ci with 2 Mbytes DRAM
C2714A	Color high-performance upgrade — upgrades an HP 700/X terminal processor base unit (P/Ns C2304A/B, C2307B) to an HP 700/RX Model Ca with 2 Mbytes DRAM

If you are upgrading, you must order new X Window server software. HP recommends that you order additional DRAM, depending on the applications being used.

HP 700/X terminal discontinuance

Effective June 1, the HP 700/X family of X Window graphics terminals were discontinued. Effective August 1, HP 700/X server software will also be discontinued. The new HP 700/RX family of RISC-based X stations replaces previous HP 700/X terminals and software.

The following is a list of the discontinued products and their replacements:

Product No.	Description	Replacement
C2301B	HP 700/X base unit	700/RX Models Ca, Ci, Mi
C2303B	HP 700/X color 14-inch X-terminal	700/RX Model 16Ci
C2304B	HP 700/X color 16-inch X-terminal	700/RX Models 16Ca, 16Ci
C2305B	700/X grayscale 19-inch X-terminal	700/RX Models 19Mi
C2307B	700/X color X-terminal	700/RX Model 19Ca

The following products will be discontinued August 1, 1991:

Product No.	Description
C2310A	700/X server software for HP 9000 systems
C2312A	700/X server software for Apollo systems
C2317A	700/X server software in ROM, English version
C2318A	700/X server software, Japanese version
C2319A	700/X server fonts, Japanese version

Orders for the HP 700/X terminals will be accepted until June 30, 1991. Final shipments of the HP 700/X terminals will be August 31, 1991. HP support for the HP 700/X terminals will last five years after discontinuance (June 30, 1996). Orders for the HP 700/X software and fonts will be accepted until August 31, 1991, and final shipments will be October 31, 1991.

New high-performance, high-capacity mass storage for HP Apollo 9000 Series 400 20

HP Apollo 9000 Series 400 factory special EISA upgrade 23

HP Vectra PC prices reduced 25

HP support of Innovus NetWare for HP 9000

For the U.S. only

HP Customer Support offers support for Innovus NetWare for the HP 9000 PC local area network operating system. Innovus has ported Novell's Portable NetWare (a C implementation of native NetWare for the PC) to HP 9000 platforms. NetWare for the HP 9000 has been shipping since late 1990 and is currently available on Series 600 and 800 systems only. The HP 9000 Series 300 and HP Apollo Series 400 and 700 products are planned for later this year, as is worldwide support.

NetWare for the HP 9000 is fully NetWare 386 compatible, tested, and approved by Novell. It allows an HP 9000 platform to act as a NetWare server, giving PC clients full access to NetWare file services, print facilities, resource accounting, backups, and network security. In addition to NetWare resources, the PC client has complete capabilities under HP-UX including access to host applications, terminal emulation via AdvanceLink and other popular emulators, and accessibility to advanced HP 9000 networking capabilities.

Support under HP Network ResponseLine program

Support for NetWare for the HP 9000 will be available under the HP Network ResponseLine program introduced April 1 in the U.S. Under the program, software support for HP-UX and Innovus NetWare for the HP 9000 is combined with the multivendor fault isolation and problem management. If you purchase hardware support for your HP 9000 server and PC clients, you will receive a complete, one-vendor support solution for your NetWare environment.

For more information

For additional information, contact Innovus, Inc. at 416-529-8117. For further information regarding support for NetWare for the HP 9000, contact your HP representative.